University of Maryland (Series)

Early Doctor of Medicine and Doctor of Physic Dissertations with Contents Tables of Contents

These manuscripts described as either an Inaugural Dissertation or Inaugural Essay were presented to the University of Maryland for the degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1837. The individual dissertations were bound together during the 1960's. The original table of contents for the bound volumes contained mistakes in indicating names, titles, and/or years. To address these issues, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the errors of detail were: Richard J. Berube, Historical Library/Preservation Library; Marla Milligan Posner, Microform Management Division; Angela Cardenas and Carol Harling-Henry, Resources Division; Sarah Thomas, Alice Roberts and Megan Wolff, Services Division.

These dissertations were digitized in 2011-2012 and are available in the UM Digital Archive (http://hdl.handle.net/1903/11811) and the Internet Archive (www.archive.org).

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1851 (b)

Author	Title	Notes
Hurtt, Thomas	Remittent Fever	(faded)
Kennedy, A.T.	Dyspepsia	
Howard, George A.	Science of Medicine	(partially faded)
Quinan, Pascal	Pathology of Inflammation	
Thomas, James H.	Clinical Report of Cases	
Burneston, Edwards	Malaria	
Wilmer, William R.	Coxalgia	(partially faded)
Todd, Henry L.	Acute Laryngitis	
Priestley, Edward	Philosophy of Disease	
Cooper, George R.	Menstruation	
Crain, Robert	Pneumonia	
Day, John T.	Dysentery	
Crawford, Basil B.	Acute Rheumatism and Rheumatic Pericarditis	(faded)
Carr, Mortimer	Dysentery	
Sewell, Franklin L. *	Scarlatina	(partially faded)
Garrott, John E.	Intermittent Fever	
Roberts, William B.	Conduct of the Physician	

* Noteworthy calligraphy on title page.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	
Taylor, George	The Atmosphere	(faded)
Mumma, Edward	Poisonous Effects of Arsenous Acid	
Montgomery, William T.	Rheumatism	
Fontaine, James	Sympathies of the Stomach	(faded)[1]
Forney, Cornelius W.	Opium	
McIlvain, John E.	Erysipelas	
White, William	Phlebitis	(partially faded)

1 Illegible in original.

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UNIVERSITY OF MARYLAND

THESES

1851 (b)

Hurtt, Thomas	Remittent Fever	23p.
Kennedy, A. T.	Dyspepsia	17p.
Howard, George A.	Science of Medicine	20p.
Quinan, Pascal	Pathology of Inflammation	46p.
Thomas, James H.	Clinical Report of Cases	23p.
Burneston, Edwards	Malaria	20p.
Wilmer, William R.	Coxalgia	18p.
Todd, Henry A. L.	Acute Laryngitis	12p.
Priestley, Edward	Philosophy of Disease	25p.
Cooper, George R.	Menstruation	11p.
Crain, Robert	Pneumonia	83p.
Day, John T.	Dysentery	67p.
Crawford, Basil B.	Acute Rheumatism and Rheumatic Pericarditis	19p.
Carr, Mortimer	Dysentery	20p.
Sewell, Franklin L.	Scarlatina	32p.
Garrott, John E.	Intermittent Fever	25p.
Roberts, William B.	Conduct of the Physician	24p.
Taylor, George	The Atmosphere	26p.
Mumma, Edward	Poisonous Effects of Arsenous Acid	34p.
Montgomery, William T.	Rheumatism	13p.
Fontaine, James	Sympathies of the Stomach	17p.

Forney, Cornelius W.	Opium	23p.
McIlvain ~~McFlain~~, John E.	Erysipelas	18p.
White, William ~~Wm~~.	Phlebitis	27p.

An Inaugural dissertation
on the
[illegible]
submitted
to the examination of the
Trustees by [illegible]
and
Faculty of Physic
of the
University of Maryland
for the degree
of
Doctor of Medicine
by Thomas [illegible] Hewitt
of Kent County
Maryland

1851

1Mb
18878

4

Inaugural dissertation

on

Remittent Fever

This is perhaps not only a more interesting to the general reader than any other particular disease, but more especially than those which occur in southern regions, and Remittent fever as most predominant; it is here that the pathology of malaria is most exposed and it is now that the invaluable principles our illustrious countrymen shine so conspicuous; that in the prosecution of my treatise on Remittent Fever, we find a long train of symptoms and not with great pain and anxiety, beginning at the

cold and [illegible] through the hot to the sweating stage;— there are distinct forms, in all cases of the disease appears in its most marked and characteristic forms, combining all the features which may have appeared in a great many cases; but we shall find it utterly impossible to give such a description of this disease, as will embrace in it all its various forms, relating to different times in different places in different constitutions and under the different circumstances in which it may be modified. [illegible] these [illegible] peculiarities of fluid [illegible] a proper collection of all those symptoms [illegible] in the [illegible]

[illegible] books, is called perhaps for the first time, to a patient labouring under [illegible], by [illegible] symptoms he has learned to associate with it, he concludes that [illegible] and pronounces it to be a mere inflammatory disease, or a disease of debility — How [illegible] that this mistake may be made and by its a fatal error committed it shows the importance of a knowledge of the many forms of this disease, and the danger of considering it a simple disease always characterized by a certain set of symptoms, and always to be treated by the same routine of practice. — I would not be understood to allude to the [illegible]

anomalous symptoms which frequently arise during the progress of a fever; but distinctly bilious fever assuming entirely or in part the form of disease or being masked by them. It is a fact familiar to Physicians in practice here that this fever is endemic, that it is modified almost every year by some atmospheric constitution, and hence is attended by a different array of symptoms and requires some difference of treatment, in order to meet different indications. Indeed remittent fever is one of peculiar form to journey with; it presents in a thousand different phases, from the mildest variety where it is almost impossible to distinguish it from

intermittent and indeed from the most aggravated type of pernicious or malignant fever; and indeed to a form of fever closely resembling if not the yellow fever itself. Without entering into an argument to prove that the cause of bilious and yellow fever is the same aggravated in the latter instance by the effluvia generated from the filth of large masses of people crowded together, and the epidemic constitution of the atmosphere, which gives it a more malignant or typhoid form.

Without bringing forward arguments to prove that these fevers are forms of one and the same disease I may be permitted to state my belief in the unity of their

nature and cause. — As matter
and it may be found rather
lurking within the dusted point
of Baltimore or the Ohio or
matter in and by itself, rather
within or outside the tropics
no matter in what country or under
no region it may appear that
we have good grounds and strong
reasons for believing yellow and
Bilious fevers to be produced by
the same cause viz: marsh mi-
asmata &c. — I claim that
under all circumstances it is the
same that is the same, is
the remote cause, of all the dif-
ferent modifications of the
disease for the same cause producing
under modified circumstances
modified effects, must under
equal circumstances produce

[illegible]

[illegible] illogical but unnatural ...

[illegible] how this disease

attacks the patient, it has a

strong tendency to come about

the same time the following day

as nothing intermittent pain may

closely in its type but not con-

nection, this is in question

with a paroxysm occurring

about the same time every day.

The symptoms of intermittent

fever may be thus briefly

summed up. The patient

perceives for several days or

even a week previous to an attack,

with loss of appetite, lassitude

morning nausea and uneasiness

at the epigastrium, furred tongue

limpid urine, [illegible]

[illegible] in the head and supra orbital pains, pain in the [illegible] [illegible] the limbs, aching in the joints, chilly [illegible] [illegible] heat; all of these symptoms are not to be looked for in every case, sometimes one, sometimes another is wanting, and occasionally nearly all of them are absent, but it is very rare for a patient to be attacked, without some of these premonitory symptoms.

Bilious Fever usually commences with a chill, sometimes this is very slight, so much so that it is hardly perceptible, even to the patient. The face is pale, the nose and ears cold and the breathing is short, hurried and

anxious, pulse small and weak; pains in back and loins, the limbs cold and numb due up to the body; there is frequently nausea and vomiting. The symptoms may continue from a few minutes to several hours, then they gradually subside, and are replaced by stage of reaction; when the patient feels warmth the surface becomes moist, the skin burning, and the respiration rapid and deep, the mouth is parched with great thirst and burning heat of stomach. The pulse is more frequent, full, and strong; beating from 100 to 130 per minute; the face is flushed, the eyes are red, and full, headache of a tensive throbbing character; sometimes

delirium, and frequently severe pains in the back, and limbs. This state of feeling and generally lasts some time, from 6 to 14 hours, when the fever abates. The skin becomes soft moist, and cool first about the temples neck and then over the whole surface; the pulse gradually declines in frequency and strength till it almost assumes the standard of health. The tongue is soft and moist, and the headache and nausea which have been so distressing to the patient are entirely gone, or greatly relieved, and he feels so much better, that he often falls into a gentle slumber from which after several hours he awakes, greatly refreshed,

has no appetite and eats
with apparent relish. This is
included the remission. It is
not always as marked as above
described, but is almost always
more or less so, and generally
enough to be distinguished. -
It is very variable in duration.
In some cases it lasts only a few
hours; in others it runs, last
12 or 14 hours; its length differing
according to the continuance
and frequency of the paroxysms.
To one unacquainted, with the
nature and character of the disease,
it would seem almost entirely to
have disappeared; as the patient
now, complains of nothing but
weakness, and a confused pain
in his head. Still, in the course
of the day, he is taken with

rather more than a week, but
sometimes longer, with a chill
passing through the hot to the
sweating stage or paroxysm
without even a chilly sensation;
the fever commences, and lasts
longer than the first, subsiding
after a variable length of time,
without the appearance of moisture,
and then the fever continues,
alternately increasing and relax-
ing; each paroxysm becoming
more protracted and severe, and
each remission shorter and less
distinct, until the disease assumes
the continuous form; when the
patient is affected in the following
manner. The pulse has acquired
increased strength, hardness, and
frequency, beating from 120 to
140 per minute; tongue covered

with a yellowish or brownish
pain; the skin and conjunctiva
are of a yellowish hue the head
feels hot with a deep jaundiced
pain over the eyes, and frequent;
there is delirium; the face is flushed
there is great heat, tenderness and
burning pain, in the epigastrium,
bowels disordered. The urine
is scanty, and high coloured.—
These symptoms characterize the
fully formed and somewhat
advanced period of this disease, and
are modified almost indefinitely
as the brain the stomach the liver
or any of the other internal organs
are more or less affected.
The physician is seldom called
on to treat the cold stage, as it
is generally so short, and yields
so soon to domestic remedies

than to sweat or cause
sweating. But if on recovery
of the normal warmth, he should
be called to from the congestive
stage, the patient should be
placed in bed warmly covered
and should drink freely of
some mild hot tea, and we
should endeavour to break the
chill, by recalling the blood to
the surface by hot bricks to the
feet, and by immersing the
feet and legs, in hot stimulating
pediluvia, bottles filled with
hot water, and bags filled with
hot salt or sand, should be applied
along the spine and to other parts
of the body. If these means should
fail to arrest the chill and the
patient is sinking from its effects
call of ammonia or Brandy may

be cautiously administered, and if there is much nervous disorder, opium may also be given, by the mouth or rectum, and the patient's extremities should be rubbed with a mixture of Cayenne pepper and Brandy heated, or hot oil of Turpentine, warm mustard plasters applied over the stomach, to the inside of the arms, thighs and other parts of the body. As soon as reaction is fully established, the first thing to be considered is the propriety of bloodletting. In this disease there is a great tendency to congestion and inflammation of the internal viscera; for the prevention and removal of which, the lancet

is strongly indicated when therefore a patient of a good constitution, not shattered by previous disease, or intemperance is attacked, and there is no typhous epidemic prevalent the lancet is the sheet anchor, one will most always do good. It should not be employed with a view to its curative effects, but to relieve the system of a part of its load, equalize the circulation, and thus prevent those structural lesions, which we know, are almost certain to supervene, if this is not done to moderate the system we can control the action of the heart and arteries. This disease is now firmly fastened to the system by each returning paroxysm;

and something more, may be done to weaken its cold and prepare the system for the use of that great antiperiodic Quinine, which has a more happy effect and rarely fails, when, preceded by bloodletting, to prevent a return of the paroxysm. If performed early one good bleeding is in most cases sufficient, and cups or leeches may be trusted to still farther relieve any internal organ seriously threatened with inflammation. It sometimes happens in Bilious fever, that there is great congestion of the stomach and brain from its inception, when instead of the pounding and inflammatory pain so characteristic of this disease, there will be symptoms of debility, as a

small feeble and irregular pulse, cool and relaxed skin and great prostration of the nervous system, when to meet this mark of debility the true nature of the case may be detected.— Here the system should be aroused by the application of stimulants or stimulants to the stomach cylinder and different parts of the body; and small doses of carbonate of ammonia administered with care.— As soon as there is evidence of decided reaction the brandy will be found the best stimulant, taking it cautiously at first; if the pulse rises under its use it is an evidence of its good effects, and it should be continued until there is some improvement

made on the system. If on the contrary the, mitigation may, it is an indication to stop it. ~~we~~.

Having considered the admissibility of bleeding, we now proceed to speak of the other remedies employed. Some have recommended to commence the treatment of Bilious fever with emetics, but, owing to the frequency of gastritis and inflamation of the brain in this fever, and the great injury emetics would inflict in either case, they are of doubtful efficacy and, are now abandoned, esp, if in cases where there is evidence of irritating matter in the stomach as indicated by nausea and constant retching, or when an

attack comes on soon after a heavy meal, in such cases the stomach should be unloaded by a gentle emetic.

What we doubts may be in regard to the good effect of emetics in Bilious fever; there can be no objection to the use of cathartics; on the contrary they are eminently useful, and with the lancet and Lavement, form our most effectual means of treatment. — Of cathartics, calomel is the the best, and most suitable, to emulge the biliary organs and remove portal congestion. It may be given alone in a dose of 10 to 30 grains followed in five or six hours if it does not purgate by a dose of Epsom salts, or from 10 to 30 grs in combination with

[illegible] quantity of compound
colocynth pill, [illegible] of [illegible]
[illegible] and common antibilious
cathartic on this disease. —
A [illegible] is [illegible] the only im-
portant auxiliary indication the
pain of [illegible] [illegible] [illegible]
by bloodletting, or in cases where this
is not applicable, it may be given
in doses of [illegible] with [illegible] nitrous
spirits every hour or two, so as to
slightly nauseate; when thus
[illegible], it exercises a remarkable
control of the circulation and
powerfully aids in minimizing
about a solution of the pneumonia.

Having pointed out some of
the [illegible] [illegible] [illegible]
treating the pneumonia and the
omission being now [illegible]
distinct Sydenham's Quinine would be

given from 1 to 2 or at most
from one to three hours, prone mala,
so as to administer from 10 to 40 gr
during the origin. A general
rule this will prevent a return of
the paroxysm where the system is
properly prepared for it by
general and local depletion, with
antiseptics &c. — But should it fail
to do so, from epidemic influence
or other circumstances; we have
a specific remedy in Mercury,
by small and repeated doses
of which we should endeavor
to bring the system under its
specific effects as speedily as
possible.

In conclusion
I beg leave to say, it is with a
little diffidence that I submit
these humble views upon the

character and treatment of
typhoid fever, to the critical
acumen of the learned professors
of the University of Maryland.
My health has been poor for a
long period, and a sojourn has
allowed me but a little time to de-
vote to writing, and whatever may be lacking
in perspicuity in comparison to
gentlemen of more leisure will be
attributed to this, and not to
indifference or neglect. Accept
gentlemen my warmest thanks
for the many acts of courtesy and
kindness you have been pleased to
extend to me and the men, whose
zeal and interest, received at your
hands, will in after years inspire me
with pride and pleasure in recalling to
our memory a glorious month.

An Inaugural dissertation
on Dyspepsia
Submitted to the examination
of the Provost Regents
and
Faculty of Physic
of the University of Md.
for the degree of Dr. of Medicine
by A. Y. Kennedy

1851

I shall not detain
you with apologies, and deprecations of
severe criticism, which I am sensible, are
often liable to the suspicion of being de-
-signed to excite admiration at the succes
of a novice, rather than to account for
his dificiences: I shall therefore simply
state, that this is the first time
I have undertaken to write a treatise
on a medical subject, and hope that
the Honorable Members of the Faculty
will overlook my numerous mistakes.
As I have been a victim to the tyrant
dyspepsia for sometime, and ~~[illegible]~~
having spent many hours in studying

its rise and progress (although I admit I do not know as much about it, as I should) having a case under my hands for so long a period, be that as it may, I know more of this disease than any other, so I have determined on it, as the subject of my thesis. Before stating the causes and treatment of dyspepsia, it will be as well to look at the anatomy of the organs affected. The stomach is a conoidal sac of a considerable curve, having its situation in the epigastric region. The exterior of the stomach presents two faces owing to its being flattened antero-posteriorly. It also has two curvatures, and two extremities right and left; the latter is much the larger, terminating in a cul-de-sac. The orifices are the cardiac and pyloric. The cardiac orifice

is situated in the superior portion of the stomach, immediately below the diaphragm, forming a junction with the oesophagus. The stomach gradually diminishes in size from left to right, presenting nothing remarkable; but seems to be continuous with the small intestine; at this extremity is the pyloric orifice. The structure here is much thicker than at any other portion. Its curvatures are called the greater and lesser. The greater includes from the cardiac round the inferior edge, to the pyloric. The lesser is the edge between the orifices. The stomach comes in contact above with the diaphragm, and left lobe of the liver, behind with the pancreas, on the left with the spleen, and below with the colon

and mesocolon. The right extremity of the stomach is much lower down than the left. The stomach consists of four coats. The external is peri-toneal, and comes from the separation of the two leaves of the omentum minor; it completely covers the stomach, except at the curvatures. The second is a muscular coat, its fibres pass in both a circular and longitudinal direction; at the pyloric orifice the circular fibres are collected in a ring of some thickness, and helps to form the pyloric valve. The third coat is cellular, and is situated be-tween the muscular and mucous; it serves for the transmission of vessels and nerves to the lat-ter. The fourth is internal and is termed mucous or villous.

It is a continuation of the mucous membrane of the œsophagus; but the epithelium that covers the stomach is much thinner. It is thrown into very irregular folds, and is thick, and soft like velvet: at the pyloric orifice its circular folds form the pyloric valve. The interior surface of the stomach is also covered by a great many pits or cells, which are thought to secrete gastric juice, and are called gastric glands. The gastric artery supplies the lesser curvature. The greater is supplied by the right and left gastro-epiploic, and the lesser extremity by the vasa-brevia. The nerves that supply the stomach are from the par-vagum, and sympathetic. The intestinal canal is thirty

ivr feet long in the human subject and extends from the pylorus to the anus. It is divided into the large and small. The small intestine reaches from the stomach to the ilio-colic value and constitutes four fifths of the canal. It is cylindrical and about one inch in diameter; but diminishes in size at its descent. It likewise has four coats, peritoneal, muscular, cellular, and mucous. They resemble the coats of the stomach very much. The mucous coat is longer than any other, and of course is thrown into more numerous folds, called valvulæ conniventes, and the surface is covered with numerous projections of a conoidal shape, denominated villi; each one consisting

are an artery, vein, and lacteals. The lacteals do not open on the surface; but the chyle goes into the intestine by means of cells. There are a set of glands in the intestine called Brunners and Payers glands. Brunners glands are small and mostly found in the duodenum. Payers glands are much larger and found in the lower part of the intestine. Anatomists have divided the small intestine into three parts, viz duodenum, jejunum, and ilium The arteries are from the mesenteric; and the nerves from the solar plexus. The commencement of the large intestine is termed the cæcum or caput-coli; which is about two inches in length;

from the caput-coli to the pelvis is the colon: and from the colon to the anus is the rectum. Like the small intestines it has four coats, the peritoneal muscular, cellular, and mucous. The mucous has no villi; or conniventes valvulae. On the side of the coecum is a valve, called the ilio-colic; it empties the contents of the small intestine into the large. With this sketch of the anatomy of the parts, I will proceed. Of all the deseases that afflict mankind, indigestion is the most troublesome, like most other deseases its character, and seat is different in different individuals. We will however devide dyspepsia into three species; if I may so

allowed to use the word) though it is seldom that one variety exists for any length of time without afflicting the neighbouring parts, thereby giving rise to other varieties. The first derangement observed in the digestive organs, is generally confined to the gastric functions proper, without disturbing in the least those of the abdominal viscera. The second includes other portions of the intestinal canal, together with what is often denominated bilious symptoms. The third stage is a morbid irritation of the lining membrane of the stomach, and bowels; attended with sympathetic derangement of the liver, nervous and muscular system. All cases of disorder situated in any part of the digestive apparatus, come under the head of dyspepsia; because their immediate tendency is to prevent the

regular and healthy digestion of the food, and where the food is not digested properly it stands to reason that there is something wrong and that something wrong is called dyspepsia . . . . . .

In the severe forms of this disease it is absolutely necessary that the physician should be able to distinguish what kind of disorder is present so that his professional exertions will not only be beneficial to his patient; but gratifying to himself. There are such a variety of symptoms attendent on dyspepsia that it is often a difficult matter to distinguish them; but in the first variety I think there will be none. The tongue is furred, and the mouth is parched and dry making the

patient thirsty. The breath is fetid and there is generally a loss of appetite; a sense of weight is often felt in the bottom of the stomach after meals or a feeling as if you had not eaten anything for a month after a short abstinence. Heart-burn, nausea and rejections of food are frequent symptoms. The bowels are sometimes regular; but often have a tendency to costiveness. There is tenderness, and pain on pressure in the epigastric region, likewise a pain in the left side, with a burning sensation, a sudden and transient distention to be felt at the pit of the stomach. When the intestines are mostly affected, the tongue is not so much furred, thirst is not so great, nor is the mouth

so dryly parched; that sense of weight at the bottom of the stomach together with nausea and vomiting is absent. The appetite is generally good; but the bowels are very much disordered, being either constipated or much relaxed; the opperation is offensive and of a brown, green, and sometimes almost of a black colour, and the patient is annoyed with flatulence When pain is felt it is commonly in the right side near the umbil-icus. The irritation is felt at the extremity of the digestive organs the patient being often afflicted with piles. When the biliary organs are involved in the existing desease The bowels are constipated, the the discharges are unhealthy, and the patient complains

of a constant pain in the right side. The tongue is covered with a thick coat of fur, of a yellow colour and sometimes there is an enlargement or hardness in the right side just at the margin of the ribs. Headaches always accompany indigestion.....

Causes. The grand cause if, not the chief one of dyspepsia, is a sedentary mode of living, that is where the exertion of the body is deficient. Passions of the mind and sympathy with other parts of the body also induce dyspepsia. The too frequent application of all unnatural stimulents lead to the derangement of the functions, to-be-sure at first this excites them to vigorous exertions until at last they are worried and sink into

torpidity, and that is not all it may bring on inflammation, which might terminate in disorganization. Late hours and an unrestricted indulgence of the appetite, particularly when the food is not wholesome, and a variety of minor causes induce dyspepsia. But deficient exercise, and mental anxiety are certainly the most common and most powerful causes.

Confinement to a city, eating as fast as most of our business men do and the constant use of medicine bring on dyspepsia.

Treatment. In the treatment of dyspepsia, there are two or three general principles, that are of the utmost importance. In the first place the secretions should

be restored to as healthy a state as possible. The patients strength must be kept up, and the irritation and pain should be relieved by all means. The greatest attention must be paid to the diet; gentle exercise ought to be taken, and the mind kept free from all care. The patient should take but a small portion of food at a time. Palpitation of the heart is a troublesome symptom in dyspepsia, it may sometimes be palliated by a combination of sedatives with tonics. Johnson speaks highly of nitrate of silver in dyspepsia accompanied by palpitation of the heart. When the liver is disordered a small quantity of blue-mass at night with an aperient in the morning given three times a week will

set all these to rights. The want of appetite is relieved by bitters, and when the appetite is unnatural and worrying rhu-barb, magnesia and bismuth should be given. When pain and soreness exists at the pit of the stomach, in the side or chest, cupping-glasses with a blister I think is the best treatment. Pain when the stomach is empty is best relie-ved by bismuth and magnesia, and if the patient complains of pain after meals a little bismuth and opium should be taken before meals. When the patient is troubled with flat-ulence, an alkaline remedy is best, say a teaspoonful of sal-volati-le. Vomiting which occurs in dyspepsia, caused by a morbid irritability of the stomach, is a

bad symptom to treat. Lime water does better than, than any thing else, and the patient should eat less. For constipation, five grains of rhubarb and aloes can be taken before breakfast. For eructations of acrid matter, soda and amonia is a good remedy. There are a great many modes of treatment and I believe every physician has his own, for my part I have never been treated twice alike.

An
Inaugural Dissertation
On
The Science of Medicine
Submitted to the Examination
of the
Trustees, Regents and Faculty
of Physic of the
University of Maryland
For the Degree of
Doctor in Medicine.

By Geo. Aug. Moran of Va. 1851.

The science of medicine, there in the middle of the nineteenth century is just beginning to emerge from chaos. Science is a mighty sister and yet in early youth. Some of these great sisters can boast of maturity. Some often like the fair Goddess Minerva can be said to have sprung full blown from Jupiter's head.

A beautiful relationship and dependence exists among this harmonious family. Each is collaterally dependent upon the progress of the others for nourishment and strength. Virtually all mathematicians have long claimed for the exact sciences an independence and priority of dent-

opment – that their steps are surer and firmer, in a word, altogether more impregnable and progressive. But in as much as they are all in fact subject, or rather to the question will be perceiving one of them, say the Mathematics, walking alone. – ——— Every human science then is yet in its twilight. Art however, is nearly perfect, while science like a bright traveler is still seeking light. The sculptor two thousand years ago wrought greater wonders with his chisel than the genius of all succeeding ages have been able to achieve. Art is operative – mechanical. It is essentially dependent on practice. With the frequent performance of operations which gives to the surgeon skill in the use of instruments: it is

the other respective efforts which give to it under his dexterity — to the speaker his grace and power of elocution, ~~xxxx~~ to the singer his melody and volume of voice, and ~~xxxx~~ to the artist, the wonderous witchery of a practised pencil. Art however is substantially independence on science. Indeed, they are auxiliary agents which the inventive genius of man calls into play in unravelling the mysterious web of nature. But the progress of Science can never be as rapid as that of its two comprehensive auxiliary. This is evident from the nature and office of the two respectively. The nature of science is speculative and investigative, — inductive and deductive, hypothetical & theoretical, analytical and synthetical — in a word, its nature

is abstract - involving in its office a complex and comprehensive ratiocination of all the higher intellectual processes. The nature of art on the contrary is less abstract - requiring for the most part only a little tact and practice in carrying out principles and leading truths which science has unfolded. The province of the philosopher and the mere artist are hence, essentially different. It is the office of the one to study nature - to investigate truths and to classify and arrange them into a connected system. It is the duty of the one to reduce to practice the discoveries of the other. If the artist finds out an unknown truth it is usually by <u>invention</u>, while the man of science <u>discovers</u>. Hence to the

reflection, I cannot understand that many of the arts are so very complete while not one of the whole series of sciences has as yet attained but little more than the chrysalis stage. It has indeed grown into a proverb that science is slow in its progress. Still Pope tells us, we may say that,
"Like a vast snake, it creeps its slow length along." And on the other hand astonishes the multitude by its activity and its unexpected performances. We will conclude these reflections by the remark that as glass is sacrificed of a day, the diamond of centuries, thus, an art may be perfected in a lifetime while a science is completing only in the continual roll of coming years, each succeeding

years opening a page in the infalli-
ble annals of the mysterious book
of nature.

If the above remarks
are true of science and art
in the abstract, it strikes
us that they are not without
a due degree of force as applied
to the science and art of Medicine.
External Medicine,—especially
all that is operative or mechan-
ical in relation to it, being
from its very nature less
complex and more fam-
ilia than Internal Medicine,
has certainly attained to a
point comparatively nearer
its goal than has its more
lofty correlative, the science
of Medicine proper. And in
Medicine proper, it more

dependent on science than is any other art. The progress therefore is [illegible] that of any other art practised among men. But there are other and very cogent causes which have contributed to this result besides its great dependence on science for its advancement. A large proportion of the profession have long practised Medicine too much as a mere art. Many outlook in it a calling and pursue it empirically. Many again who have enjoyed good advantages — having been instructed in the best schools in the country both literary and medical have yet lapsed through a previous

"culture" into a stupid routine system of practice little better than empiricism itself. In fact they are the worst kind of empirics, since they are among us, and are seen throughout the entire length of the land, bearing with them the titles, honors and emoluments of the profession, deceiving the public and degrading the science in the estimation of the intelligent portion of every community. Their number is legion, their work of mischief most appalling. They constitute the most formidable enemies with whom an enlightened band of our art had ever to contend. Their name, contracted minds utterly exclude every thing

like a proper professional courtesy from their vocabulary of diseases, remedies and death.

We have said that our art is more dependent for its success upon the progress of science than is any other art and that inasmuch as science from its very nature and the character of the subjects of which it treats is necessarily of tardy growth, ergo, the art of medicine is more encumbered and retarded in its practice than is any other human art. But such unfortunately is not the opinion of a large class of the profession. They seem to think, (if indeed we can infer

any thing from the practice) that Medicine is solely an art, and can be what it is only independent of science altogether which is to be learned and practised as are other trades, that is, by rote or by rule. It will be readily perceived that this again is another difficulty clogging the march of Medicine.

But why, it has been often asked, is Medicine so far in the rear of all other sciences? The answer to this question ought to be evident to every reflecting mind; and yet the inquiry is frequently made with an air of triumph by many of the unprofessional who

vant themselves upon their superior intelligence. A little reflection would serve indicate to such persons the immense disadvantages against which she has always struggled. In the first place, she could make no considerable advance until science and art had laid down the railway for the passage of her complicated machinery. And in the second place, with all the assistance which she has received from her sisters, the great workers in revealing the secret laws which govern the operations of nature, still

the great complexity of the materials with which she has to deal and the backwardness of the sciences on which her grand superstructure is based, to solve the problem which she has propounded themselves of such vast extent and importance that without their solution no further advances can be made in either the fundamental departments. These values of the healing art constitute abundant reasons to account for their retarded development. It should be remembered that Medicine derives contributions from every

department of Physiology
that the human frame
exhibits a Machinery
so complete, that the
most skillful Mechan-
ical philosophers have
been unable to improve
from its Mechanism. It
contains a laboratory
better furnished than
is or can be made, and
chemical processes
too complex for the unin-
structed mind to comprehend. The
But the student of Medicine
should not confine himself
only with the investigation
of either Chemistry or Mechanics.
Anatomy, Special and gen-
eral, Morbid and Minute,
as well as Comparative;

of the physician.
And it may not be too
much to say that certainty
in the diagnosis and treat-
ment of disease, — especially
of those diseases pecu-
liar to women — commenced with the discovery
of physical signs. The
ideas of Oppler must
contributed largely to this
result, that is, to a more ac-
curate and positive knowl-
edge of the operations and
processes of certain morbid
states of the system, whence
to a more intelligible man-
agement of disease. The
revelations of the Microscope
have that been not only
curious and wonderful,
but also of extreme utility.

and rare occasion to indicate rather than prove by any logical reasoning or learned disquisition the relation of every human science and art to each other and their dependence the one upon the other. We should have premised that nature is governed by certain immutable laws and that it is the business of science to discover these laws and to arrange and classify them into homogeneous systems, and that each of these systems that classifies and arranges constitutes a grand unity, and that these unities when arranged according to their natural relations make up the great

circle of human science. Then therefore, that the perfection of this circle is as dependent upon that of each unit composing it as is the integrity of of a mathematical circle upon the points in space which when united complete the circumference. Hence, it is manifest that this great scientific circle can never be completed until each of its units shall have been perfected. But not one of the entire series has reached this point. Hence, we are correct in the assertion with which we commenced that science is in its infancy. In fact, the

present incompleteness of
the Science of Medicine
is indicated and accounted
for by the deficiency in
the Sciences on which she is
dependent and to which
she is intimately and con-
secutively related.
The Science of Medicine
is not therefore justly
entitled to censure in con-
sequence of her tardy progress,
since it is apparent that
each link in the chain
must be finished before
the entire chain itself can
be completed. But science
is now beginning to emerge
from the night which
has for ages overshad-
owed her rising sun. At least

her "darkness" is now "rendered visible". Another Bacon may now gather in great abundance the innumerable pebbles which cover the vast Ocean of Knowledge yet unexplored. Science is beginning to find with a firmer step, "up the steep ascent of Nature", but the time is still far distant when she will give light and order to a gladdened world.

Divided as we are that some advancement in the contributing departments of science is necessary before the march of Mind can be said to have come to a halt advanced that the oppor-

long is now afforded for her
rapid progression.
[illegible]
to gain [illegible]
[illegible] to the young aspi-
rant in Medicine who
has launched his barque
on the vast ocean of
of Science. What a de-
lightful and extensive
voyage is before him!
How bright the prospect
which invites him onward
through the intricacies
[illegible] perfect
[illegible] — the laws
of nature and operations
of all that effects that
wonderful Mechanism, Moral,
Physical and Intellectual
Man. — Baltimore, Feb. 14th 1851.

An

Inaugural Essay

on

The Nature of Inflammation

Submitted

to the

Trustees, Regents and Faculty

of

The University of Maryland

on Examination for

the Degree of Doctor in Medicine

by

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There is perhaps no subject within the range of Medical Science, which has attracted so much attention as that of inflammation. The most eminent minds have devoted their entire labors to it, with an ardor which in some instances is no less surprising than commendable. It has however also unfortunately served as a foundation on which the speculative and the ingenious have delighted to rear theoretical superstructures too often the mere creations of fancy. Many of these theories were indeed destined to vanish before the incessive marches of increasing knowledge derived from actual observation. Thus how

easily was the error of Cullen's spasm in the extreme vessels detected by the microscope which exhibited the vessels dilated. The great Boerhaave also theorized. Inflammation, he said, depended upon obstruction of the capillary circulation. This obstruction according to him was caused by an alteration in the blood. By an excess of excretion, or in some other way, the watery portion of the blood was removed, thus rendering it thick and viscid, and so causing obstruction. Here again however more minute investigation showed that no such general change in the blood was essential to inflammation, and as the whole of the circulating fluid would be in a similar condition the effects would be more likely to be general than local. It should be stated however that this was not the whole of Boerhaave's theory, he also believed that that in some way or other the larger and ex-

muscles got into the minute vessels obstructing them; and this is termed an Ecrasi.
Boerhaave seems to have mistaken a mere effect for a primary cause, the blood is certainly altered, but this alteration would appear to ~~be~~ result from other and more primary causes.
It is not difficult to discern why nearly every inquirer bestows some portion of his attention on this subject. There is surrounding every attempt at research into the 'hidden springs of Nature' a certain mystery which attracts the inquirer whilst it induces him to hope that he will be enabled to unravel difficulties which have proved formidable to the greatest intellects. This together with the importance of the subject, and the intimate relation that it bears to the causation of an infinite number of diseases, all conspire to create a desire for its investigation.

In commencing our investigations concerning the nature of this disease we find the morbid actions principally occurring in the capillary circulation. The question at once arises, what are the regulating laws of this circulation in a state of health. To understand in what the derangement of any function essentially consists, we must of course first determine the necessary conditions for the healthy performance of that function. A reference to Physiology in a solution of this question shows us that at the very threshold of research is we have encountered a considerable difficulty. Physiologists are not as yet agreed whether the movement of the blood in the capillaries is due entirely to the heart's action or to a motive power inherent in the vessels themselves. Have are distinguished learned and seemingly strong arguments arranged on both sides of this question, but a fuller knowledge necessary for each argument after

a due consideration of details as [illegible] I shall therefore take occasion presently to attempt an advocation of the latter view. My. that the capillary circulation is in a great degree independent of the action of the heart. This view is in my humble judgement the one nearest allied to the truth. It may be asked, how can this conclusion in the science of Physiology prove an obstacle to the pathologist. Chiefly in this, that as he is ignorant of the precise state of affairs necessary for healthy action, he cannot satisfactorily determine at what point the disorder has commenced, and what conditions usually present, are now absent or disordered. He is thus liable to confound cause and effect and to mistake secondary results for primary agents in the production of the diseased action

Evidences of an independent capillary circulation — . That the blood in the capillaries is greatly influenced by some other power than that of the heart and larger arteries I think we have both negative and positive proof. — Negative because there occur phenomena which can be explained in ~~any~~ no other way of which blushing from mental emotions is an example; and positive because the capillary circulation is carried on for a certain time after general or somatic death, and the cessation of the heart's action. This is proved by the emptiness of the arterial system. In plants and the lower animals there exists a circulation necessarily independent of any central motive power. This circulation cannot be said to be entirely the result of any known physical laws, and must consequently be the result of a power, peculiar to, and inherent in, this structure.

Now in accordance with the law of analogy every where manifest throughout organized beings, we may reasonably infer, that this circulation is in man, and the higher animals, is in a degree due to a similar power. Here an objection may be supposed to exist in the fact that in the more perfectly organized beings we have a powerful organ, the heart superadded. It will be seen however that this fact does not seem to invalidate the ground here taken, when we reflect that the more complex structure of the higher animals doubtless requires this additional propulsive power.

Experiment seems also to be conclusive upon this subject. Thus the heart of the frog, an animal frequently the subject of a experiment, has been excised, and the blood in the capillaries observed to move for at least thirty minutes after the operation. If the movement of the blood

in the capillaries was caused chiefly by the heart, the microscope ought to exhibit something like an oscillatory motion or change in their calibre. No such motion can be detected in current more equably and rapidly onward, not at all similarly to its progression in the arteries. Again there is great want of regularity in the direction and continuance of the current; it is subject to sudden variations, from changes of temperature and other causes. If the small vessels are inactive and the circulation within them is to be entirely referred to the heart's action it becomes difficult or impossible to ~~account~~ account for the irregular determinations of blood so frequently taking place. It is from observation of this that a highly valuable practical rule is derived. A blister is applied to the surface to act upon the principle of revulsion for the purpose of relieving the engorged part.

Now from our anatomical knowledge of the situation and relation of the heart to the animal tunics we cannot suppose that it can have the smallest power by which to transmit blood to one partic preference to another. It is thus unequivocally seen that these small vessels do exercise some power by virtue of which they are capable of regulating the supply of blood to them. Even those who hold an opposite opinion, admit that the capillaries undergo contraction under the influence of certain stimuli and if so they must possess an active vital property for such is contractility. There is however one occurrence which if well substantiated affords in itself a sufficient proof of an independent capillary power, that is the maintenance of the circulation in the vascular portion. These monstrosities throughout the whole term of their gestation and at birth are fatty

[illegible] with the exception of the [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
to a [illegible] [illegible] the capillary structure.
It is not here intended to indulge in any specu-
lations relative to the precise nature of this
[illegible], it would appear to be closely allied
in character with what is termed, for want of a
better name, vital actions to be accurately defined
in the present state of our knowledge of the
[illegible] connected by processes and [illegible],
that by means of alternate contractions and
expansions on the part of the vessels the blood
was carried forward. It is however difficult
to conceive how such an action could in any
way assist in the propulsion of the blood.
It would indeed most probably prove
more of an obstacle or hindrance than aid
to its progress. Accurate observation
[illegible] of the mode in which the
sanguine current progresses, as was before
mentioned, seems and doubtless does at once

communicates such a doctrine. The organ-
ism comes onward, and does not exhibit
the slightest evidence of any pulsatory
movement. It will be sufficient to barely
mention here, the doctrine lately promul-
gated by Mr. Wilson. The capillary circu-
lation according to this gentleman, is con-
ducted by a series of vital attractions and
repulsions. It will be observed that this
is little more than a modification of
Hallen's views respecting the general cir-
culation, It requires our belief in a peculiar
and essentially vital principle in the blood
as well as the vessels, but which is so
foreign to all preconceived notions of the
circulating fluid as to require further con-
firmations before it can be adopted.
There can be little doubt that the Nervous
System is intimately connected with, and
exercises control over, the capillaries. The
phenomenon of blushing is commonly

adduced in support of this opinion, there have however been decided evidence in the experiments in which the brain has been suddenly destroyed, followed by the immediate cessation of the capillary circulation, while if only a portion was destroyed, altho' immediate death ensued, the motion of the blood was rather accelerated than otherwise. The sudden arrestation of this circulation could not have resulted from the stopping of the heart, because as an ordinary thing, it continues for sometime after the lungs cease to beat. These experiments were made by a distinguished observer, Mr Wilson Philip, and their truth is well attested by other good authority. The necessary conclusion from these, and other facts, which might be mentioned is; that we have a capillary circulation possessing a distinct and active motion from not as yet clearly ascertained, but which

is greatly influenced by the nervous system.

Nature of Inflammation — The nature of inflammation, notwithstanding the general progress of the science, is still involved in considerable obscurity. In treating of this portion of our subject the term 'Proximate Causes' will be avoided, for although first suggested by the distinguished Cullen, it is a phrase used to designate a something which has no real existence. Many theories explanatory of the Nature of inflammation, have been advanced and many facts with true and false the latter being by far the most numerous have been adduced in their support. Yet after all, this vexed question is perhaps just as much mooted now as it was half a century ago. The microscope by rendering clear not a few previously undetermined points, and enabling men to observe with accuracy as well as thought.

we doubtless done more to elucidate this difficult subject than any other investigation. As the differing opinions which are now entertained are supposed to be founded upon microscopical examinations, it will be here necessary to call to mind the chief points, which such examinations present for consideration.

Among the most prominent of those who have experimented with the microscope, occur the names of Thomson, Hastings, Gendrin, Wilson Philip, Gower, Hasselbalmus, and Williams. These observers have principally employed in their experiments, the blood of the frog, for, chiefly, on account of its transparency. It appears I believe that upon the application of an irritant to this structure ~~that~~ an afflux of blood to the point of irritation immediately occurs. Thus, having the authority of the old aphorism "ubi irri-

tation in lungs. Concerning the next proposition [illegible] refer to the immediate dilatation of the ordinary vessels. Nelson Philip, [illegible] of denying the experiments almost immediately contradicts us however an explanation of this unusual occurrence; by telling us, that ~~that~~ the irritant used in his experiments was common, quicksilver, [illegible] upon could not have been retained in would ~~[illegible]~~ irritating by its co-operation cause a sufficient degree of cold to account for the contraction, were prevented by covering the part and which, there is no evidence was done in the case before us. It must therefore be considered as established upon the authority of Sir Astley Cooper; there being no adequate evidence to the contrary; that immediate dilatation of the ordinary vessels.

occurs under the influence of a certain degree of irritation. The first occurrence is a corresponding diminution in the rapidity of the circulation; simultaneously the microscope reveals the presence of an increased number of the colorless corpuscles. These corpuscles which exist in healthy blood in a limited proportion, are in inflammation greatly multiplied. They appear to roll lazily along partially adhering to the walls of the vessels and to each other, thus accounting in a great measure for the partial or complete obstruction which now takes place. Such are the principal phenomena which may be observed in an inflamed tissue by the aid of the microscope. It is from these phenomena only that we should form our opinions respecting the nature of the disease.

Two very different theories are now entertained relative to the nature of inflammation.

Neither of these opinions are at all novel — both of them have long been familiar to the medical world. Inflammation, is said by some to consist essentially in an increased action on the part of these capillary vessels, while others contend that it depends upon a diminished action and debility of the same vessels. The latter doctrine appears upon examination to be totally opposed to the facts which are derived from observation. All agree that there is a pealed amount of blood in the vessels of the inflamed part. Now it is difficult to conceive how a diminished action on the part of the vessels could affect this. True it may be said that we have this blood accumulated thus suddenly owing to an increased action of the arteries in direct communication with the inflamed capillaries. This however is mere supposition, we have no evidence of such being the case, while on the contrary

many facts go to prove, that the capillaries are capable of influencing the amount of blood sent to them in health, and it is easy to suppose that the same influence may be exerted by them in disease. If then the engagement of the part is to be referred to the small vessels it is certainly not very logical to suppose that they effect this by a diminished action. Again if we adopt the theory of diminished action owing to debility of the capillary tubes we must first admit the possession by them of active vital properties; for debility is a condition which can only be induced in highly vitalized tissues. Merely elastic tissues could not thus suddenly become debilitated. We must therefore before we can give credence to the doctrine of debility, overcome the opposing difficulty which here unavoidably presents itself viz: the existence of an active vital power in the capillaries which is not even during the presence of the most powerfully working causes brought into

exercise. It would appear to be probable that the advocates of this doctrine have confounded the apparent weakness in either oppression which results from obstructed action with genuine debility. The line of distinction between these two conditions may be demonstrated by referring to the opposite treatment required for their relief. When debility is caused by oppression, the abstraction of blood by relieving the lost balance between the venous and arterial system recalls the vital functions and effects a cure. On the other hand in the debility of exhaustion the lancet must of course be discarded and tonic remedies be had recourse to. In inflammation the capillary circulation is certainly oppressed and obstructed but facts are wanting to prove the primary occurrence of debility in these vessels in this disease. We could not reasonably infer as Normally remarks that a man who could ordinarily carry

a number of the known products had evidently grown worse, because the new matter to replace would the weight. It has been previously stated that quite a number of pathologists, consider this disease as having its essential character, in an increased or excited action of the capillary vessels. This doctrine would seem to be the one most capable of being sustained by constituted facts, and most compatible with the observed phenomena. Many arguments can be found in its, which sustain the theory of increased action, a few will suffice for our present purpose. A very strong evidence in its favor exists in the fact, that in the commencement of this disease, there is always a very perceptible exaltation of all the functions of the part. The secretions are as a general thing augmented in quantity, and more positive's appear to be eliminated. Now this certainly is not compatible with a diminished degree of activity in the part. One of the products, congulable lymph, from the fact

that it in itself has the power of undergoing organization, the Brain can only be produced by a very active exercise of the vital function i.e. same thing is true of the processes mentioned increase in the white corpuscles. The researches of physiologists have shown that the amount of these corpuscles is always in direct ratio with the energy of the formative processes. The precise office which they fulfil in the nutritive function is as yet undetermined, yet that they do play an important part is evinced by the fact that they always are present in the largest proportion, where this function is most actively exercised. While then the augmentation in these corpuscles proves to us the active character of the disease it also affords an explanation of the obstruction to the circulation within the inflamed vessels which occasionally occurs

It has been urged as an objection to the theory of increased action that the blood vessels are

only possessed of that sort of vital [illegible] termed contractility, and that consequently an increased action could only be caused by increased contraction. According to this view the expansion of the minute vessels which occurs in inflammation must result from a diminished action or [illegible] of tone in them. The question however on which this seemingly specious objection is founded, is altogether supposititious. If the arguments already adduced in proof of the existence of an active capillary influence be held as conclusive, it will also readily be admitted that this influence or power is quite as often manifested by the dilatation of these vessels as by their constriction. Indeed that the capillaries do both actively dilate and contract has been demonstrated by experiment. It has been shown that while one stimulant gives rise to contraction on the part of these vessels, another or the same one in a different degree of violence, when applied causes dilatation,

The existence of active vital properties in the blood vessels is too frequently associated in the mind with the presence of muscular structure. No such structure has been demonstrated in the capillaries, and therefore we have no right to infer that they are not possessed of a different or more extensive power, than such tissue elsewhere confers. It has been mentioned that these vessels under the influence of different degrees of irritation at one time contract at another dilate. The precise character or degree of stimulus which may give rise to these differing results are unable to ascertain.

Although inflammation undoubtedly consists primarily in an increased action there is good reason for believing that such an action does not solely constitute the nature of this disease. It has been heretofore stated that there is a great probability, if not absolute certainty, that the nervous system is related

immediately with the function of these capillary vessels. Now observation would go to shew that in inflammation there is more or less derangement or modification in the nervous action of the part & other parts connected or related to the affected part. In what this derangement consists on physiological grounds of the nature of nervous action forbids us to explain – Again in the latter stages of the disease, modifications of the morbid action take place which can only be referred to the existence at this time of real debility of the vessels. This is unquestionably the real state of affairs towards the close, the debility having been induced partly by the obstructed ~~action~~ circulation and partly as a consequence of the previous state of over excitement.

<u>Phenomena of Inflammation</u>. These are but very little better understood now than formerly, and therefore a ~~in~~ consideration of them will here

suffice. Redness. This is the most appreciable symptom. The increase in color is either dependent on the accumulation of blood in the vessels, or to its extravasation in the circumjacent tissues most commonly to the former. This may be proved when the inflammation is superficial, perhaps the case in which it is most evident is in inflammations of the transparent conjunctiva. It is possible by attending to the particular shade of redness to determine as to the character of the disease, whether common or specific. Thus in ordinary, or as it has been termed it, healthy inflammation the redness is equally marked and of the same intensity, while in the specific variety, as in erysipelas it occurs in patches presenting something of a mottled appearance.

<u>Increased Sensibility</u>. The pain in this disease varies greatly both in character and degree according to the part in which the disease exists and also its duration and intensity.

Pain has been usually attributed to the tension upon the nerves caused by the engorgement of the part. The same instances however, as in bone mentioned by Dr. Gibbon upon the initial attack, there is but little or no tension or engorgement of the part. The pain is extremely acute. This would lead us to suppose that the pain of inflammation is very frequently dependent upon some obscure alteration of the nerve structure itself, which we are at present unable to explain. The character of the pain as aforesaid, appears to be in a degree regulated by the tissue which is inflamed. Thus in the serous membranes, the terms sharp and lancinating are usually considered as descriptive of it. In the mucous membranes there is generally a sensation of soreness or perhaps burning. Periosteal inflammation is characterized by a heavy, dull, aching sensation referred to the bone itself. The cellular tissue ~~is~~ when inflamed is marked by pain of the aching

wind. Inflammation of the stem gives to the patient a sensation of burning, tingling, or perhaps itching. It is a very rare sequence for inflammation to attack the nerves, but when it does the pain is excessively severe. Pain however even in very serious cases is as often very trifling or not infrequently ~~as~~ absent as a constant symptom, being in many instances only developed upon pressure.

Heat. Notwithstanding the assertions of Hunter to the contrary, it is pretty certain that there is some increase of temperature in inflammation. It is however not at all in the ratio which the feelings of the patient would lead us to suppose. As to the cause of this increase of temperature it is accounted for ~~this~~ by the greater amount of blood in the part, partly by the red corpuscles, and by the exaltation of the vital function which we have already mentioned. It is supposed by physiologists that the red-corpuscles act as carriers of oxygen and they may perhaps

be in some way concerned in the production of the heat there being a greater number of them determined to the inflamed tissue.

Swelling. Some amount of tumefaction usually attends inflammation. It is due in the commencement to the engorgement and subsequently to effusion into the surrounding parts.

The alterations which occur in the blood deserve our attention. Mention particularly in the relative proportions of the constituents. The fibrin which probably is the result of a more complex arrangement of the albumen of the blood, becomes a very important part in the organization and formation of the tissues. It is indeed the material from which they are constituted. When obtained from recently drawn blood and freed of all coexisting matter by repeated washings. It has the appearance of a white tenacious mass. Fibrin according to Nasse exists in the

proportion of 3½ to 4 parts in a 1000 of healthy blood, the known ratio in some degree even in health being influenced by the age of the individual, kind of food &c. The researches of Andral have shown that in inflammatory affections there is always a sensible increase above the normal standard of the fibrin. This increase is said to be sometimes very considerable; it very frequently amounts to 5 parts in 1000 of blood. It is moreover generally in a direct ratio with the intensity of the existing disease. Although the fibrin is as a general thing sensibly augmented yet inflammation not unfrequently happens while this constituent remains at the usual amount or even a little below it. This statement would appear as contradictory to the assertions of Andral, but upon investigation it only tends to confirm the truth of what that distinguished pathologist has advanced,

they appear upon close inspection that even in those instances where a positive increase of fibrin occurs it is not due to a positive increase, but there is undoubtedly a relative one owing to diminution in the red globules. Here we have an explanation of the condition of matters in that variety of disease termed Anemia. The patient in this disease is very pale, apparently almost bloodless with a feeble pulse, and yet often times with a great proclivity to inflammatory disorders. In the blood of such a patient the red corpuscles are found greatly diminished, thus giving in lieu, the predominance to the fibrin and so accounting for the frequency of inflammation under such circumstances. Hence we derive a practical rule of much importance, the know what is deficient in such case and can therefore select an appropriate remedy. Science has shown that iron has a considerable influence in

existing the lost globulin and thus that this is the agent usually selected, and there is no other which does exert a direct influence over this constituent of the blood.

The red corpuscles, however do not vary in amount at believe in inflammation. But they have a peculiar property about them which ~~has~~ as it explains a very common occurrence in this disease is worthy of note. I refer to the increased tendency which the red discs to adhere a short together in recently drawn inflammatory blood. The microscope shows these corpuscles becoming aggregated, sticking together, by their flat surfaces, and looking pretty much like piles of coins. Now this peculiarity of the red corpuscles, is interesting as post mortem, because it elucidates the well known appearance of the blood in inflammation viz: the buffy coat. Before recently drawn blood has begun to coagulate

the red discs quickly form connections with each other, vertically, forming the sponge, partly by the white beneath the surface. The fibrin formed of the corpuscles contracts firmly, squeezing out the serum and so rendering the top or surface of the clot nearly colorless. The red corpuscles however collect beneath this colorless stratum and give to it the buffed appearance. It is said that any agent having a tendency to retard coagulation as contrain of the salts, will produce the same result by giving time to the red corpuscles to subside and free themselves from the fibrin. In some of the inferior animals as the horse this tendency of the red-globules is said to exist normally. The cupping of cupped blood is caused chiefly by the layer of serum which being, and as aforesaid of the globules contracts more vigorously than the rest of the clot, thus drawing in the edges and giving to the surface a hollowed or cupped form. The buffy

course was formerly looked upon as an indubitable sign of the existence of a high degree of inflammation. The fact now well established however that it occurs in many conditions, of the system not essentially inflammatory, has caused it to lose much of its seeming value as a diagnostic sign. It is present very frequently in anemia and in the last stages of scurvy. Its presence in these affections as indeed has always been due to the disproportion between the two elements, the globulin having undergone a great reduction. The pregnancy buffed blood not unfrequently occurs. Perhaps the most unvarying mark of the existence of this disease is the presence of a hard and frequent pulse. Should the buffy coat not exist of course no doubt could be had as to the nature of the affection — the abdominal inflammation however an exception to this rule of the pulse is supposed to exist the pulse being small and

given

Terminations of inflammation. As it is obvious this affection can only terminate in one of two ways, either by Resolution or insensible restoration to a state of health; or by Mortification, or death of the part. There are however certain other processes, sometimes looked upon as terminations, by which Nature when driven into attempts to effect resolution, resorts to for the purpose of saving the part, and bringing about ultimately a complete restoration to health. These are Suppuration, Granulation and cicatrization. Induration and effusion are also occurrences, although very important ones, which take place in the progress of the disease.

Resolution. When inflammation is about to terminate in this way the symptoms undergo a gradual amelioration. The pain, heat, and swelling or visible colour and the part is soon restored to its healthy state without any visible trace of disease remaining.

Mortification, is generally the result of an excessive [illegible] of [illegible] in the whole exhausts the vitality of the part; or of a a moderate amount of excitement occurring in an already impaired constitution. It is in other words a consequence of excessive action, the powers of the system, being good, or of a less or inferior grade of action the powers being feeble. The symptoms vary according as it is the result of much excitement or the contrary. In the former case, the pain which precedes its establishment is severe, and the redness rude spread. This redness soon however changes to a purplish brown. No secretions or perspiration is apparent the cuticle becomes elevated a discharge of bloody [illegible] takes place, and the part is virtually dead. So serious an accident as mortification of course produces its effects upon the system generally. The pulse becomes quick, small and irregular, hiccup is a pretty constant symptom and delirium not

unfrequently supervenes. When the vitality of the part has been previously reduced, as by the continued application of cold, a very low degree of inflammation follows and the part rapidly mortifies. There would be in such a case no great amount of pain, or heightening sensation would probably precede the complete death of the part.

Suppuration - When the inflammation has been of a "too violent" character to allow resolution to occur or as more frequently seems to be the case, too long continued, the heat and pain subside, the part becomes softer and constitutional symptoms announce the commencement of suppuration. Venous symptoms however are not usually present where suppuration is easily accomplished as on mucous membranes; indeed the non or slight venous seems to be an effort of Nature, to collect the blood in the heart and great vessels which are thus stimulated to contract, vigorously propelling an increased amount

of blood is the fluid about to secrete pus as well as it is still [illegible]. Pus is an apparently [illegible] fluid of a yellow, a yellowish green color and of a cream consistence, indeed healthy pus looks very much like rich cream. It consists like the blood, of two portions a serous or watery liquid and of numerous, small and circular corpuscles. These corpuscles resemble very closely those of the blood excepting their want of color. Pus is neither acid or alkaline in its reaction. Its specific gravity is greater than that of water and consequently it sinks beneath the surface when put into a vessel containing water. Healthy pus is odorless and bland in its character, but pus ~~upon~~ sometimes especially that in specific diseases is exhibiting cunning excoriation of the parts to which it has access. It does not ordinarily readily take on the putrefactive process. Respecting the mode in which this fluid is produced there is considerable difference of opinion. It was formerly believed

that is not caused from a dissolution of the tissues: the pain is continuous, increased. Surgeons will continue to secrete pus for perhaps months and yet there is no loss of parts or destruction of the membrane. In this urethra or examples. Sir then as is now generally admitted, is a secretion ~~from~~ from the vessels. There are other doctrines entertained however. Professor Virchow contends that the pus-globules are nothing more than a modification of, or rather degeneration from, the granulation corpuscles visible in opposed lymph. This opinion may or may not be true although apparently a plausible one it requires positive confirmation before it can generally be admitted.

Ulceration. Ulceration probably results from the presence of the same cause in a milder degree, which gives rise to suppuration. Something, which without exhausting completely the vitality of the tissue yet produces such a diminution of its vitality as to render the part unable to

with the action of the absorbents. Perhaps the
thorax-pad is only cause a slight ulcerative
pressure composed of cases with inflammation.
Thus the ulceration of the walls of aneurismal
extravasations which is frequently comes to
usually the result of long continued pressure.
The most interesting fact concerning ulceration
is its unmaking tendency to press towards
the surfaces. Now while in it is difficult to
explain this undeniable fact in it is on the
other hand not in the least difficult to dis-
cover its utility and conservative influence.
For example where an abscess is formed deeply
in the body, were it not for this law it might
proceed with the substance of some important
organ and so cause destruction of life, but in-
stead of this the pus makes its way by ulcerative
absorption, through the integuments and finally
points externally. The best explanation which
can be given, perhaps, is to refer it to the
smaller degree of vitality which the superficial

structures generally possess and to suppose that they on account of this, smaller vitality, are not so capable of resisting disruption as the old and more highly vitalized structures are.

Granulation. Wounds are healed in one of two ways: either by the medium of effused coagulable lymph, or by granulations. The latter mode of repair Nature usually resorts to where there is much loss of parts as in ulcers. Granulations are small spongy excrescences endowed with the power of secreting pus. They appear to be formed in the following mode — a layer of fibrine is effused in the cavity of the wound or abscess and the vessels shoot up through this layer, and show themselves upon its free surface in the form of granulations, they terminate by open mouths. Thus a portion of the cavity is filled up. This first layer is pretty soon succeeded by another. The vessels at this time secreting matter and so ~~cate~~ covering the surface with a liniment which protects it from

the contact of the atmosphere. By a continuance of this process the cavity is at length completely obliterated. Granulations are made up principally of the ramifications of a minute artery which enters them at their base. That method by which a granulating surface becomes covered by a structure resembling the original is termed cicatrization. It is effected principally by granulations shooting out from the edge of the sore or surrounding skin, and uniting with those on the surface. By this means the edges are brought nearer together, the surface is smoothed off, vascularity established in the surface of the new structure, and complete repairation effected. It has been observed by surgeons that an oval or oblong sore will heal by granulation with greater facility than a circular one, because in the former the granulations from the edges can sooner unite with the central ones. A very small portion of the body may be reproduced

it is said because that muscles always unite by fibrous and cellular tissue.

Effusion - Both the serum and the fibrine of the blood are effused. The latter is termed by the English coagulable lymph. This name was given to it by Hewson it is not an appropriate one however, because the word lymph refers to water, while the fibrine is a solid and a pretty firm one. It is by the agency of the fibrine that adhesion or union by the first intention of surgeons is brought about. The only necessary condition for the complete organization of the effused mass appears to be its immediate contact with a living tissue. The fibrin when drawn out first undergoes coagulation at this period by the microscope we can discover numerous small granular points which soon become aggregated into a small bodies called — corpuscles. If the mass is now cut into, a great many small red points

begin to show themselves which are the commencement of the new vessels. Vascular connection is established by the elongation of minute vessels from the surrounding structures. They push their way into the new structure differing from ordinary vessels in being very tortuous. A week or ten days usually elapses before complete vascular connection is established. At least the part cannot be freely injected before that period. The state of the system doubtless modifies the character of the effused material. Inflammation occurring in a scrofulous constitution for example is attended with the effusion of a lymph which is incapable of a complete organization.

Induration. Hardening is a not unfrequent consequence of inflammatory action. It seems to depend chiefly upon the deposition of partially organized fibrin

whole parts to be absorbed. If in these cases absorption be favored by pressure, this lymph and consequent hardening, may be removed. For instance in chronic enlargement and induration of the testicle, as a consequence of orchitis, if pressure on the part be excited by means of a well applied bandage, after an indefinite time the part is restored to its normal size and condition.

Softening. This often amounts to a partial disorganization of the part in which it is seated. Softening is as always I believe, the result of inflammation although some contend that that which occurs in the brain is caused by the deposition of cells containing matter and which by a rupture of the cell walls is diffused throughout the substance of the organ.

Inflammation is very much modified in its character by the tissue in which it is located. It is also much more liable to occur in some parts than in others, the liability of a part to become

inflamed seems to be in a state of insensibility.

Cellular Membrane. The cellular tissue is usually inflamed in consequence of a spread of irritation to it from the skin and adjacent structures; it is usually termed phlegmon. Effusion into the cells of the membrane usually takes place obliterating them. It is very apt to spread extensively and Nature consequently establishes a barrier to its progress by throwing out lymph. Suppuration when the inflammation is severe usually results and an abscess is formed which has a tendency to open externally by ulceration through the skin. In depraved constitutions an extensive sloughing sore termed Carbuncle not unfrequently results.

Muscles. When inflamed are said to manifest the presence of the disease by spasmodic twitchings.

Serous Tissues. Inflammation of serous membranes form a very important class of diseases which the physician is daily called upon to treat. These membranes although not remarkable for their sensibility in the healthy state become exquisitely so when inflamed. Effusion of serum is the most ordinary occurrence

which attends these inflammations. The fibrin a plastic agglutinable material, coagulable, is most commonly [illegible], the tendency to undergo organization is usually manifested by the production of what are termed false membranes, bands of lymph, which after a time take on the appearance of the cellular tissue, and numerous adhesions. This is especially the case when the disease is located in the pleura, or lining membranes of the thorax.

Mucous Membranes. These structures owing to their being quality exposed to irritating causes are very commonly subject to the act of inflammation. Perhaps they oftener become inflamed than any other tissue in the body. The secretions from these surfaces are in the commencement, usually diminished, but subsequently are often very copious, and oftentimes become purulent.

A Clinical report of Cases,
Submitted to the examination
of the Provost, Regents, and Faculty
of the University of Maryland, for
the degree of Doctor of Medicine,
by —

James Henry Thomas
of Dorchester County
Maryland

articular

Cholera, Rheumatism, Pericarditis and

endocarditis supervening.

[illegible] the col girl twelve years old entered

the [illegible] Infirmary, Nov 18th, had been pre-

viously [illegible] [illegible] the city.

[illegible] stage before entering, she was exposed to

rain. Up to this time her health was good.

During the night after the exposure she

[illegible] taken with a chill, and the next day

the 19th was taken with violent pain in the

ankle joint accompanied with swelling: soon

after with [illegible] and swelling in the wrist

of [illegible] to such a degree that

the joint was [illegible] when seen.

When admitted she was quite [illegible]; pulse 126

heart examined, found nothing abnormal. Acute

articular rheumatism. She was bled to ℥ VIII: she

was put upon col. [illegible] with [illegible]

[illegible] the morning [illegible]

[illegible] to die — The blood gave a clear coagulum

and little [illegible] serum. [illegible] that

on 19th The symptoms pretty much the same as yesterday. The treatment continued.

On 21st [illegible] continues to attack from joint to joint; and is intolerable.

p. 126. V.S. 3iv. other treatment same as yesterday.

On 22nd The pain in the joints has left the lower extremities and attacked the upper. 10 o'clock P.M. Complained free from pain and swelling in the joints, but complains of violent pain in the precordial region. On examination it was found that the disease had attacked the heart. The first and second sounds of that organ were obscured. Palpitations again set in. Head pretty increased. Respiration difficult owing to improper circulation of the lungs on account of diseased action of the heart. She would not remain in a horizontal position, but sat hard and leaning. Two Cups were applied over the precordial region, which caused her

great pain during the [illegible] & [illegible]
[illegible] obtained some relief afterwards.

Nov 22nd. Still great tenderness over the region of the heart. [illegible] and [illegible] the pain to [illegible] stopped. Blisters [illegible] were applied over the heart; when they were taken off a warm poultice was applied to keep their sores bleeding through the day. In addition to this she took part of a Cal. gr. Opium, Hyos degetalis every 2 hours.

Nov. 23d. Could not hear the heart sounds at the heart. In this place was heard a chirping sound, a most distinct rubbing or boring sound. There was general tension, as the effect from the impulse of the heart against its walls.

Pericarditis, and carditis had most certainly supervened in all their violence. The treatment of yesterday was continued. At night she was somewhat easier.

Nov. 24th. The complained most of pain over precordia. Respiration easier. P. 134. fuller and firmer. Acute pain had left her joints; the stiffness and swelling had also disappeared. The same treatment continued: at night her gums were slightly touched. The irregular sounds of the heart very little altered

Nov. 25th. Found her somewhat easier. Better very much as yesterday. General symptoms slightly improved. Very little change in the action of the heart. The pressure to be continued. Complains much of a sore mouth

Nov. 26 Objecting so strongly to taking the medicine it was thought best not to urge her by insisting upon it, so she had not any bowders during the day. Towards evening she rested better and slept well nearly the whole night.

Nov. 27th General symptoms than
increasing pulse rapidly frequent
[illegible] pain in the [illegible] joints a
slight sensation of soreness over the praecordia
skin slightly in inspiration, which is
worst at night during the night.
Six leeches were applied over praecordia
Hyaline [illegible] quite severe. Mucous odor
of breath. Salivary glands much swollen
and tender on pressure. Mercury pushed
thus far in order to gain its antiplastic
and absorbent powers.
Nov. 28th. The slight remaining pain and
stiffness about the wrist joint have disappeared
[illegible] the enlargement left the result
of fibrous effusion. Some soreness over
praecordia [illegible] well: appetite beginning
to return: general appearance much better
the disease is now localized to the
heart. pulse 120. This frequency of the
pulse being continued probably by

[illegible] to the heart's action by presence of water in the pericardium, thus giving necessity for increased frequency of action in order to make up for the opposition of its powers. The sounds of the heart still abnormal. Serum and fibrin no doubt still being developed. Previous treatment stopped and tablets given twice during the day.

Nov. 29th. General symptoms much the same as yesterday. Ptyalism still severe: treatment stopped during to day.

Nov. 30th. Feels easier to day. Cardiac symptoms slightly improved. Natural sounds of the heart slightly perceptible - friction sound not quite so loud. Splashing sound still very evident from the presence of water in the pericardium. Pulse 120. Appetite good. All her secretions are low natured. Altogether her symptoms are much improved

Dec. 1st. [illegible] [illegible] [illegible].
A blister [illegible] [illegible] [illegible] was applied
over the heart to act as a revellent and
[illegible] [illegible] effusion from pericardium.
[illegible] well and was dressed with [illegible]
[illegible] ointment. In the [illegible]
[illegible] [illegible] [illegible] the [illegible]
[illegible] [illegible] [illegible] [illegible].
Dec. 2nd. [illegible] [illegible] [illegible] sitting
up in bed. pulse [illegible] at 126.
Dec. 3rd. The natural sounds of the
heart are heard distinctly. To & fro sound
very indistinct. Appetite good. according
to his own account he feels [illegible].
From this time till about the 26th Dec.
very little change takes place: some-
times [illegible] [illegible] [illegible] [illegible] [illegible] times off treatment
During this time the [illegible] sounds
of the heart are [illegible] [illegible],
so that at [illegible] date [illegible] [illegible] [illegible] little
[illegible] sound [illegible] [illegible] [illegible] difficulty

of circulation is quite very great, caused by the imperfect secretion. Organic lesions of some kind, some organic changes in the heart.

This especially in breathing, unknown very little. The patient is obliged to sit up in bed. Thus supported, she remains nearly the whole time. Her favorite position is with her chest flexed on her knees; pulse 120 regular and rather hard. Her appetite is good. Suffers no pain anywhere except her mouth which is quite sore. The ptyalism is treated with a wash of Muriatic acid ℥ij, aqua ℥j being careful to guard the teeth. An ointment of the Iod. of Potash is applied over the praecordia as a sorbefacient, and alterative. Blisters are also occasionally applied as revulsents and sorbefacients. Hot Pot and Sweat Hands of Vitro are also

upon as diuretics. The sections generally are in a little added to, as the great medication in this case. Notwithstanding that she is still improving, yet a prognosis for a complete restoration of the heart functions is grave.

Dec. 27th. Has been off treatment for some time, and slowly improving; some bellows murmur is still heard in the sounds of the heart. Otherwise she is nearly restored to health.

Patient left the house this evening;

Ascites —

John O'Brien aged 24 admitted into the Infirmary Sept 11th, native of Ireland has been in this country six years: Residing most of this time in a Malarious district; had remittent fever for the first time last fall, for which he was treated in this

institution. During following winter and spring his health was good. He [illegible] occasion in June and continued till the last of July. About this time his abdomen began to swell; a few days afterwards his feet became oedematous; also felt a constant pain in the lower part of his abdomen. When admitted exhibited the following symptoms: Abdomen much swollen; feet oedematous: not much prostration of strength; pulse 116 pretty firm; mouth very sore from mercury which he had taken before coming into the house: some cough which is of some weeks standing: passes very little urine; bowels moved once yesterday rather thin and watery. He was put upon the compound sulphur powders ℥ss every 4 hours.

Sept 12th Pulse 116 - Medicine not yet operated - passes more urine. Previous treatment stopped - He was put upon Ol. Jecoris gtt 1, Ol Ricini ℥j every 4 hrs Pulv. Doveri grs x at night.

Sept 13th Pulse 112 - Has taken three doses of the Medicine ordered, which operated five or six times. Abdominal swelling slightly diminished - He was ordered the Imperial in place of the oil.

Sept 14th pulse 106 and feeble, bowels moved six or seven times during the night - thin and watery stools. The size of the abdomen not diminished. Cough very troublesome respiration difficult from the accumulation of water in the abdomen He was tapped and three gallons of water drawn off - after which he slept well - Cough relieved -

He takes Scilla gr. 1 digitalis gr ½
Ext. Fol. gr. v three times during the day
Sept 15th Feels more comfortable
Coughs very little. Pulse 104 –
bowels still freely opened – passes
considerable urine. Continue treatment
Sept 16th pulse 92 and weak; bowels
been moved five or six times during the
day and night. passes more urine than
usual – about six ounces of fluid
flowed from the hole when he was
tapped. Cough better. Slept well
Sept 17th pulse 112 and weak.
passes much water; five or seven stools
The previous treatment continued
and in addition pulv. Doveri gr x at night
Sept 18. pulse 108 very weak – other
symptoms much the same, and feels
weaker. Same treatment, except that
in the place of the ½ gr of digitalis
ʒ ii of the infusion was given. –

Sept. 19th pulse 112 and very weak
water considerably accumulated in the
abdomen. Some attempts had been
made to draw it off but the
patient would not submit to it.
At noon he appeared much worse
and died about four o'clock
Autopsy six hours after exhibited
a hob nailed liver, Spleen much
enlarged and softened.

A Surgical Case

Robert Tiernan, aged forty
entered Balt Infirmary August 20th
having received an injury some-
hours before from a stone falling
upon him, striking him on the
back between the scapulae.
Diagnosis: fracture of fourth and
fifth ribs on the left side, also a
fracture of the left Scapula —

He was very much prostrated when admitted, pulse very weak and fluttering suffering at the left side of chest; could not raise the left hand to the head. Treatment: Wine was given him immediately. The figure of eight bandage was applied; a circular bandage was applied around the chest, and the arm well supported.

A grain of opium was administered every hour for two or three hours when reaction was established he was fed to eight ounces.

August 21 During the morning he was comparatively easy, but towards evening he suffered intense pain, was unable to lie down on account of dyspnoea; pulse feeble and strong. Bronchial rale very loud, he had an anxious look about his eyes

V.S. ℥ xvi which was moderately relieved him. At bed time ℞ Tr. opium gtt xv calomel gr iv – slept well during the rest of the night.

August 22d – Intense pain in the chest, difficulty of breathing, and symptoms of pneumonia supervening. He was put upon ℞ Calomel ʒss Pulv Ant. v gr. Ant Tart every three hours. to take at night – xv gr Pulv Dov.

August 23d Violence of symptoms somewhat abated, and pain easier. Slightly constipated. and in consequence to ℞ ʒii Ol Ricini. The previous treatment continued.

Sept. 24 Much better. Less pain less dyspnoea, strength and frequency of pulse diminished. Freer expectoration –.

Bronchial tube to be examined.
Stopped previous treatment
and a cough and expectorant
mixture was ordered.

℞
Sodae Bicarb. ʒj | To take
Spiritus gtt x | a tablespoonfuls
Succ. Spir. Camph. ℥ij | every three
Aquae ℥vij | xv gtt Tinct. Sev. at night.

August 25th. Still improving.
Pulse 95. says he feels much
better. Fractures treated as before.

" 26th Improving. Pulse 88 in the morning
95 in the evening. Slept well night
before.

" 27th getting on well. Pulse 82 in
the morning, 88 in the evening.
Much all symptoms of pneumonia
subsided

28th about the same as
yesterday. pulse somewhat
more frequent. Treatment changed

℞ Carb Ammonia [illegible] ℥ [illegible]
Gum Acacia ℥j | ℥j every
Ol Ricini ℥ss | 4 hours
Aqua Compt ℥iv | Omit the
Tinct Cellae ℥ij | Pulv Dov at night

29th Doing well, but complains of pain about the shoulder; this was probably result from the comminuted fracture of scapula.
Ordered opium to be taken at night
Slept well

Sept. 3d Been improving for the last week. 4 oz of Tincture Taken moderate exercise.

Sept 10th Left the house today apparently perfectly well.

I saw him several weeks afterwards and he expressed himself as being, as good a man as ever

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Rheumatic Bronchitis

Mary Dennis 14½ years entered the house from home in January. It appeared that she had fits when about nine months old; and about two weeks before entering, again had fits. Some days afterwards she was taken with a chill followed by fever. The next day she again had a chill. Three or four days after she was first taken sick a short dry irritative cough came on. She complained of pains in ankles and knees. No swelling discovered. The peculiar cough still continued more but the slightest local signs of bronchitis could be discovered. She complained a great deal but could not say plainly till what ailed her. When admitted not diagnosing the case very accurately she was put upon a simple cough mixture and warm baths

Thus she went on for several days with the same obscure symptoms; When she had been in the house about a week she began to complain about pains in her wrists, which were discovered to be slightly swelled & puffy. Her tongue was furred, pulse 112 and weak — Cough still very incessant but no expectoration —
She was now put upon treatment for rheumatism — She took 3 grs Pulv. Dov. 3 grs Nit. Pot. 4 or 5 times daily — she also took Colchicum moderately — she was cupped between the shoulders. Under this treat she improved rapidly — the pain left her wrists; her cough entirely disappeared; and in a day or so she became quite well.

Here was a case with very obscure symptoms at first — nothing to account for her severe

cough, the reason could be seen why it should not yield in some degree at least to the usual remedies

But as soon as Rheumatism made its appearance in a recognisable form, every thing was accounted for. The Rheumatism attacking the longitudinal and circular fibres of the bronchial tubes gave rise to the peculiar dry and irritative cough. This is the second case of the kind which has been in the house this winter - The other yielding to the same treatment in the most satisfactory manner.

Typhoid fever

Alfred Brown aet 26 native of England, a tailor by trade - slender make and sober habits - been sick five days. Nov 2d had a chill, with much heat of skin & pain in back

for several days past felt drowsy prostra-
-ted and uncomfortable although he did
not give up work till the day he was taken
with chill, on which day he also had much
vertigo — since then had had much
headache thirst, wakefulness
Nov 6th had epistaxis — Nov 7th pulse
110 & weak skin hot — tongue furred in
the middle red around the edges — headache
and drowsiness which he has had for several
days — slight cough — much weakness
and lethargy — urine scanty and brown
chest and belly covered with measles like
eruption — bowels not moved for several
days — some tenderness over stomach
vomited this morning — he is taking
neutral mixture sponging surface with
water also Castor oil ℥ss ol Terebinth gtts xx were
ordered — Nov 8 bowels moved once —
Condition same — he takes tartar to night
Paregoric ℥ii — rose spots on chest & abdomen
Nov 12th during the last four days
he has been thirsty the passed — tongue moist
much furred — pulse 116 & weak — 13th pulse
76 no fever — tongue moist & yellow
stop previous treatment — give Chamomile tea
spots disappearing 16th spots gone pulse 70 —
countenance bright — convalescent —

Remittent fever

Patrick Moriarty act 33. admitted sept 13
Ill - being delirious he can give no ac-
count of himself - those who brought him
could only state that he had been working
in a malarious district - that he had
been sick about 2 weeks - had vomited
several times - that his bowels were
loose - that he became a great deal
worse yesterday than he had been
before - When admitted he had a slight
chill which left him as soon as he
was put to bed - pulse 106 & weak - skin
hot, Much delirium - some subsultus & the
breathing hurried - Mouth filled with a
thick slimy matter - some herpetic
eruption on the upper lip - belly tympanitic
Tenderness over epigastrium - feet oedematous
Ord. III pr quinine every 2 hours - ice to his head
14th mind more rational - pulse less frequent
Continue treatment 15th bowels moved in bed
very deaf 16th pulse 72 - tongue clearing off
not so deaf - mind clear - 17th pulse
68 still a little deaf - tongue slightly furred
quinine every 4 hours -
18 Ord Compound bark powders -
Convalescent —

An
Inaugural Essay,
on

MALARIA,

submitted to the examination
of the

PROVOST, REGENTS,
and
FACULTY of PHYSIC,
of the

University of Maryland,
for the degree of
DOCTOR of MEDICINE,
BY

Edwards R. Burneston,
of
Maryland.
1851,

Thesis on Malarious Poisons

The cause of malaria or marsh miasmata has been for ages past a source of much contention in regard to the chemical character of the poison produced by decomposition of vegetable and animal matter and more particular I would speak of marsh miasmata such as is produced from vegetable decomposition. Such as we meet with along the shores of our bay, inlets and in the vicinity of very large tracts of marsh lands. And it is sometimes met with in low meadow lands where there is large inroads of fresh water or streams that overflow meadows and by this filling a quantity of vegetation which soon undergoes decomposition and give rise to miasmata This can never take place without vegetation and dampness in large quantities since,

Some have supposed that the contact between fresh and salt water gave rise to the poison. That for this reason when the fresh and salt came in contact and chemical action was produced and gave rise to Malaria. But this wild will not hold good. If this was the case there would be no effects of Malaria seen in the lower counties of Maryland on account of there being a scarcity of fresh water. My Opinion in regard to the lower counties being more healthy than those more remote, is in the first place the land is more rolling and all vegitable matter is washed down into the valleys and carried to the next neighboring stream, and is by them got rid of, and the only place it finds rest is on the river shores of the lower counties. And for this reason you seldom meet with a case of Chills and fever, and more so a case of typhoid or Bilious

Malaria fever, he will take in example the Gunpowder river, at its head receives the filth from the greater of Gunpowder city which brings with it an abundance of vegetable matter in the neighborhood, causing malarious poison and its effects, Also you will find in the vicinity of Lock. Rice in the months of July and August, the creeks at this season begin to shed their thick coat of grass, which has been accreting all the spring and summer. this coat is thrown off, by the young grass that commences to shoot about this time commonly called the fall or Winter grass, provided by nature for its offspring such as wild fowl. This Old coat produces the autumnal fever, which is in great abundance, thrown on the shores of the river. this soon begins to throw of its gas which give a sickening sensation to one's Olfactory nerves its odor has the peculiarity of that of bilge water or the washing

Washing a dirty gun barrel this you will notice morning & morning and Evening if you were not in a malarious district no doubt found this to be the case. There is other causes I think that malaria is produced and its effects are most always in the fall. This I do not know how to account for, is it because that the poison is not produced until that time or is it on account of the mornings and Evenings being very cool, and the noons very hot and oppressing, causing the system to sudden Temperatures. it seems to satisfy me that this may be most likely the case. At the same time there is a quantity of earth turned up to the atmosphere by the plough also old vegitation acted on by the sun and producing also a quantity of malaria from the vegitable matter or the poison which has been absorbed by the land is given off in large quantities no doubt.

It also seems singular in regard to the sickness being more susceptible in one farme than the neighboring one although they may be but a few hundred yards or a mile apart while one is almost entirely free from its effects the other will be subject to it. This may be attributed to various causes. either to perverse winds or a strip of woods intervening which may absorb the poison by some attraction or affinity which may be the case as vegetation is always more rapid and thrives better in malarious districts but this does not seem to always be the case where the land is low poorest the sickness is more intense, and more so towards the heads of the mess.

Some attribute the cause from damp and water and they seem to think that the water is the only cause that produces malaria. if this were the case all our

Our sailors suffer by frequent
attacks of the disease which is altogether
quite the contrary for they are more attacked
while they are following the water it is
only when they happen to lay to on land
for want of something to do in their line
of business this is the only time one
catch a sailor suffering with intermittent
or billious fever and they are more apt
to take it than other persons are they
are more apt for two reasons first they
are not acclimated to a malarious
district. though they may pass it every
day and as soon as they make any
stay on land they are very apt to
contract the disease Secondly they are
not satisfied on land when thrown out
of implyment they seek some other im-
plyment. it may be farming or any
thing odd that may be found in the way

ment of enjoyment while they are on land but this does not suit a sailors life or habit his mind is not satisfied he is like a fish out of water. and I am free to believe that the mind has great influence in helping on the disease. Speaking of the mind in regard to intermittent and Bilious fevers or non-periodic Miasmatic fevers. last fall while I was residing in Tack river near the gentleman R. residence with was taken with an ague he asked me to prescribe for him which request I complied with I gave him a purgative of xgrs. Sul. Cal. Hydrarg. combined with xgrs. Ext. Colocynth. he befallenea in sixt hours by a free use of Salts & Magnesia before I left there for B. he had taken the first prescription his wife in the course of the next morning gave him the Salts and magnesia a day or two previous

I had given him a receipt to kill fleas composed of Chloride of potash and arsenic combined with molasses. After he had taken the salts a few minutes he commenced vomiting, his chill was coming on at the same time he took the idea into his head that he was poisoned with the fly mixture which frightened him pretty considerable it had the effect of breaking the chill for that paroxysm he doubt this was his statement on my return. I then placed him on large doses of Quinine. This case has led me to believe that the mind has great weight in malarious diseases. Pro. or Con. Sickness from dissatisfaction on being on land in any time brings them more dire ills under its influence the cases of bad men are less in number than those being on land according to my statement the numbers is about three to ten on land.

In regard to those persons such as fishermen or Sein hauling a person would suppose that they could hardly escape the disease from their being continually in and out of the water in all kinds of weather hot or cold but you would be surprised to find the cases do not in so large a number occurred in that employment. there is a great mystery hanging over the Mist. of Malarious poison I am not very much Mist. atm by losing my other Thesis however all things will be brought to light some future day in regard to the properties of Malarious Poisons

The effects of Malarious poison in different individuals are various Some are more susceptible to its influence and may reside in a malarious district for a long time without ever feeling any bad effects from its

intemperate especially those persons of a thin or spare habit producing their be temperate in all things and more particular in the use of alcoholic drinks. Those persons that are most frequently attacked are those of full habit or plethoric and are of an irritable temperment or more properly of a bilious predisposition. Some are so susceptible to the effects of malaria that they cannot stay over one or two days without being attacked on their return to the city. I have known cases frequently on going to camp meeting on the lower shores from the city and returning the same day have been attacked soon after their return with the Bilious or Intermittent fever.

The progress of the disease as differs in different individuals we may term them chronic and acute. The —

chronic is that which is commonly called
dumb ague. very slow in its progress
and the patient generally feels a full-
ness about his head accompanied with
scarcely any or no pain generally the
patients seems to complain of a gener
al numbness his extremities sometimes
complains of sickness at the stomach
at times but the inflamation is not
very greate in the stomach so as to prevent
the patient from taking food quite
the contrary the patient seems to have
an unnatural apetite far exceeding
his apetite in health and he seems
at times to have no command over his
apetite. The acute is mor rapid in
its march. and its symtoms more marked.
the patient first complains of sick
stomach vertigo dimness of sight these
sentems are soon followed by a sensation

of coldness his fingers becomes shriveled the wings of the nose becomes pinched lips livid the eye becomes small and contracted. at this period the patient complains of a sensation of cold running down the spinal column the character of cold streams of iced water. This stage will soon be preceded by the hot stage. or fever. which last for a few hours during this stage the patient complains of intense pain in the head and along the upper part of the vertebra. at this time the general appearance of the patient are changed the skin loses its shriveled appearance and becomes full and plump. the nose assumes its natural shape. the eyes become bright & blood shot. and the sclerotic coat a little tinged with bile the tongue becomes darker at each paroxysm. and each paroxysm more severe in its attack. this may continue

for months if not interfeared with.
running down into the dum ague or
the more grave forms of Malarious fevers
Remitents or Billious fever. The chronic is
more apt to be [illegible] [illegible] and
dangerous effects if allowed to run on for
any length of time it sometimes runs its course
without leaving any bad effects behind it some.
times has the effects of causing the chronic
complaints. but this seems to be doubtfull
to some but I believe it may happen some
times. but in my opinion it is more apt
to leave some bad effect by weakening the
patients health down to an Enemic condi
tion. making more susceptiable to an other
disease more grave in its character this is
most likely to occur in the Remitent form
of fever. such as you may meet with on
Eastern shore lower down the bay the fever
as you decend the bay becomes more of a
Billious Remitent assuming th Ingravie

condition and also many of the diseases of
pitten were these are the fevers that are most
likely to run into typhoid fever and from other
cause. sometimes that form of typhus this you
will most likely to be the case in the lower
order of society. and among the diseases
from causes which may be the case to often
found among certain classes of people for
want of due attention to their own person
in the way of cleanliness. Those people you
will find surrounded by all manner of
filth seven or Eight sleeping in one small
apartment. and it very badly ventilated at
a time when it is most needed that
is when one of its inmates are sick. under
any other circumstances the doors of their houses
would be thrown open for the purpose of letting
in a little fresh air to make some alteration
to the disagreeable odor that arises from the
filth around.. this together with the Ex-

Evacuation of the sick patient or patients for there is most always one or two sick at the same time under those conditions of the when the effects of malarious poison is felt by the people in generally and you will find those cases however mild they may be at first you may see it seem that it is going to give you some trouble before you are done with it and in the end you will loose your patien if you do not alter the condition of things by having all offensive articles first attended to and allowing the patient pure air on such occasions as would be safe to your patient the mortality of such cases is about one third and you are fortunate if you only lose that number in very severe seasons. as the physician has great odds to contend against in this kind of practice I think under those circumstances the use of wine of some or the crude might be usefull

under these circumstances the patient should be sponged with tepid warm water for the purpose of washing his the dirt off of the surface which under these circumstances will be needed very much indeed to give free course to the respiratory & Exhaling organs which are in a morbid condition from dirt, that is if it can be done without danger to the patient. for my part I do not think under these circumstances that the remedy would be worse than the disease if it is observed with some caution In these cases you most frequently have another great objection on account of this class of people are very apt to be in the habit generally of drinking pretty extensively their constitutions previously broken down by intemperance this makes the disease frequently very hard to manage and more dangerous and if you take the trouble

to enquire in to those cases that have com
pleted all still and at last slipped their
cable. you will prence to be mine out of
ten to be men of very intemperate habits
this I have found to be the case in what
little experience that I have had in these
matters. I would not like to give the people
of the lower counties the character of drunk-
ards. but you prence it to be the case in
all malarious districts. for it is a habit
not. acquired by any means it is
brought on by a practice in families to pre-
vent the the disease. every morning from the
largest to the smallest must take their dram
or bitters. this I think is because that the
Older Ones are fond of their dram and at
the same time bringing their offsprings up
to indulge in a habit that will soon or
late destroy and Break down their constitutions
making them at all times susceptible to all

Kinds of diseases will men habit the effects of Malaria There is a great variety of causes produce these diseases but I sometimes think that the Malaria or Miasmata is not the cause so much as it is in the people them selves. These people, living on the rivers shores subject themselves to great varieties of exposure. now we will look at the matter in its right shape These people are all the fall and winter gunning for fowl on all occasions night and day and on very wet and damp day as these kinds of days are most favorable for this purpose by this means they are wet from time letting their clothes dry on them. after taking their bitters they are more than likely to take a nap in their wet clothing In the spring they throw a side their gunning for the purpose of fishing this is attended with more exposure than the former occupation

They are alternating from one thing to another. that is in a few words are fishing hunting or farming and not being like one course of study implement, without changes from one to another. With these few remarks on the production of Malaria its effects on the human system also with its assisting causes of an unnecessary character, as the habits and practices of people subject frequently to its cause. I hope at the same time that through the freaks of fortune: having to write this as my second Thesis not retaining a copy of my first. I did not think at the time there was any demand for an article of the kind. but it seems that some one through mischief or for want of composition would stoop so low as to rob his fellow student of his property giving him at the same time the trouble of writing and composing another I hope this may not be the case with any

one of my fellow students and I would not willingly charge one of them of theft but if that person should be in the class that would be guilty of an act of this kind I am very sorry for him on account of the profession. If that person should be a student of medicine I would advise him to reform his very bad habit or give up the study of medicine for the sake of the profession No. there is but little time now left for me to write a larger number of pages at this time also I would hope that the Faculty will look over any mistake or fault in this composition as I would look over the faults of others as we are all liable to error but some are of a more grave character than others

To the Faculty I feel much indebted for their kind instruction and may they always be successful in their Teaching and may they be respected by the Students generally

their instructor...

Francis J. Barnard
of Maryland.

February 19th
D.
1851.

An
Inaugural Dissertation
on Cholera,
Submitted
to the Examination
of the
Provost, Trustees and Faculty
of the
University of Maryland
for the Degree
of
Doctor of Medicine,
By
Wm. K. Wilmer
of
Wicomico County
Md.
1851.

Coxalgia

Having been a victim to this agonizing affliction, I select it as the subject of my Thesis. Conscious of my inability to produce any semblance to a brilliant or even full composition, I shall endeavor in a brief form to adopt my experience as a guide, based upon my knowledge of the structure and functions of the parts concerned, as acquired within the walls of the Maryland University.

Coxalgia is of an acute or chronic character, each of which is characterized by distinct phenomena and exhibits several well-defined stages.

I shall pass lightly over the acute form and endeavor to pay more particular attention to the chronic

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Acute Coxalgia

The acute inflammation of the hip joint, the first in the series is pain extending from the hip to the knee joint on the inside of the thigh; greatly increased by pressure of the hip, but not materially affected by touching the knee, if the shock does not extend to the region of the hip joint.

The next symptom is shortening, which the limb becomes affected, gradually lengthened or shortened, and accompanied with different grades of fever corresponding with the severity of the symptoms. Nothing, as a general thing, should not be attempted, the patient being secured able to touch the ground with the sole of his foot. The pain of the disease, the tendency to restor-

[illegible] [illegible] [illegible] [illegible]
[illegible] to suppuration. The
abscess around the joint and
in its vicinity and the wasting
away of the parts affected, produce
back bending of the extremity.

In forms of time the abscess
burst and the head of the femur
protrudes almost unrestrainedly upon
the back of the thigh, causing shortening
of the limb.

Prognosis is unfavorable. Recovery is not impossible, portions
of bone occasionally come away and
cease to be discharged, healthy tissue
takes place, but often leaves incurable
lameness.

Chronic Coxalgia.

The beginning of this disease may
be, and often is mistaken for
rheumatism. The slight pains of

on further examination, to be characteristic symptoms of one type of the other. It is the fault to consume the patient that the lung is not the chief seat of disease, and his astonishment is loud when he finds that pressure upon the lung, or pain in the breast increasing, occasionally takes from an instant his suffering.

The patient suffers most after a prolonged state of rest, the morning particularly. During the day he exists, slightly affected, but he is expected to lose sight of his misfortune, and pursue his avocations, but continued exertion causes unnatural warmth, and a spasmodic cough, forming a bodily pain, and the greatest degree of suffering and inconvenience. With such con-

under by bones of the pelvis of his
[illegible] Both the femur
the bones given by the knee and
the muscles of the thigh should be
consequently affected as the bite
takes place in the vicinity
of the hip joint through the in-
ternal surface & converging fibres
in its course to its attachment distributes
great difficulty and pain in
performing in attempting to flex
the thigh. The bed height must
almost at a right angle with the
thigh with comparatively little
exertion or inconvenience. The best
agreeable position, provided in which
the sufferer could rest formerly, was
certain stages of the disease, was upon his
back, the flexors of the thigh were so
relaxed that, the foot tender, was the
bed used rather, upon a pillow with

upon supposed bowels and a fetus
felt in the cavities of the abdomen
with his head elevated, and something
against the rectum, the bowels are
tender, but on pressure complaining
he could perfectly appreciate a great
degree of comfort and for a longer
space of time than in any other way
I knew, I suppose, when supposed to
be guarded, nothing could be more
suspicious than the tumefaction
has invented by our professor of surgery

The diseased extremity becomes
lengthened in appearance but by ac-
tual measurement it is found to be
but slight; the apparent difference owing
to that position of the fetus
the thigh is shortened and flexed
the knee retains its original appear-
ance and the leg below the knee
seems to be perfectly sound and

the most common form of the disease is slight bowing of the femur so that the head of the femur may be pressed the bottom of the acetabulum, producing a painful, suppurating, sometimes fatal, upon the bottom of the bone but without force to forge the length of the extremity against its union with the pelvis, although the bone is generally involved in the short bowing and contemporaneous causes bowing of a young person belong to the physician tell the patient that the weight-bearing of the hip-joint is the sole test of disease. The disease progresses steadily the different stages are well defined it gradually progresses on its last stage.

Chiefly diffused swelling accompanied inflamed and aching

Cavity may be effected without much
suffering. When carries deep as far
as concerned the head of the femur
bone in its natural position will
be found to the acetabulum, its car-
tilaginous envelope together with
the lining membrane of the joint
is being destroyed and absorbed, in
consequence the naked surface of bone
in contact with bone, and frequently
supplied with a serous exudation
fluid, and by consequence causing in-
curable lameness. Suppuration often
takes place. It increases gradually
and as it reaches its home usage
relieved by artificial means, there
is probably more real suffering
than at any previous stage of the
disease. The patient has horribly
sensitive to all around him. Al-
though sensitive and restless he

[illegible] with the [illegible] of
[illegible] long and [illegible] [illegible]
life days and by its [illegible] and
other. The powers of life and suffering
Nature becomes almost exhausted.
Burning fever accompanies by [illegible]
with delirium. Nature appears
to be [illegible] to discharge the con-
tents of the swelling. The cuticle
is stretched to its almost tension.
"Sometimes the abscess breaks into
the pelvis, at other times into the
bladder, and the pus is voided
with the stools." If Nature does not
become exhausted in her efforts to
[illegible] the powers of life, she will
make an orifice for the exit of the
fluid contents of the swelling, as soon
soon as it does, then the violent
symptoms moderate, relief and
sleep follows very soon. After healing

The wound feels greatly refreshed in heart and body, but the tissues of the left foot is long since this disease has been opened to the atmosphere, and further feeling is its cause. The discharge continues to be, but the swelling is entirely drained and resumes its former appearance, with the exception of the opening. Pieces of bone at different times come out with pus, showing that destruction of bone is going on within. The care of attended to that those fluid have collected, will be subjected to the serious of breaking and discharging.

It is I believe rare for the patient to recover at this stage, and in producing a single case, nature could not better display her resources. The diseased epiphysis becomes greatly shortened.

either in consequence of dislocation
of the head of the femur being forced
partly off, and the acetabulum having
lost its lining, and been exposed
and worked. The extremity was
diminished in size as well as in
length. Placed along side of the sound
limb, no one would suspect, judging
from their appearance, they belonged
to the same individual. When the pa-
tient begins to walk he is compelled to
tread on the top of his foot; and in pro-
cess of time it becomes changed in ap-
pearance. The foot in consequence of
being comparatively little used in size
and the bones together with the adjoin-
ing parts much expanded. There is
a state of motion, or rest, the foot is
almost in a continuous state with the
leg; the tarsal and metatarsal bones bear-
ing slightly the appearance of bones, a

part of the bones and joints, and the
articular cartilages, the good part
of the joint. The extremity bones become
equal either in size or shape, the healthy
its fellow; indeed, the difference in
size increases if the individual be in
a growing state. It bears against
its original activity. There is the tem-
porary of motion in the diseased joint
then always continues the obstruction
in the motions of the hip joint. While
it is in a state of motion or rest, there
remains a curvature of the spine of the
limb. When restored to health it con-
tinues more susceptible of injury than
the other.

Coxalgia proper begins in the
structure of the hip joint. Occurring in
the scrofulous diathesis, intensely inflam-
ed in the joint, the peculiar structure of
the bones of the limb is diseased than the

cartilage begins to ulcerate, kept in contact the opposed bones become fixed, effected the ligaments and bed of the adjoining parts are contracted.

Cause of the disease is constitutional, & may be brought on or aggravated by some perceptible exciting cause. The privations incident to poverty such as deficiency of clothing, limited food, the quality of food, damp lodgings want of sunlight, are fruitful sources of predisposing causes. Inquirious hovering also acts as a predisposing cause. The diathesis tending to this disease is supposed to be hereditary.

Any local injury such as punctures bruises, or lacerations may act as exciting causes if the predisposition exists.

Treatment.

Constitutional. Cod liver oil, the mineral acids; Iodine & Iodine,

Mercurial treatment is said to be a good remedy. Cold water is a pleasant and useful application. The patient will have care as to prevent the first attack of cold. That is strongly urged to prevent its assuming a chronic form. No improvement only gradually expected is permitted. — In the first stage of the chronic form perfect rest will often produce a cure within several months. According to the grade of inflammation, applying leeches, and setting the hip joint both, mercurial treatment will be found useful.

After the disease has passed the first stage perfect cure is impossible. There may be relief from pain. The general health may be entirely restored. The may acquire great activity & strength is incurable. A great deal has been said and written respecting joint-

heat and dryness of the skin, that a
treatment of the kind appears to be that
to be required in almost every instance;
but from experience I am inclined
to think that this mode of treatment
fails in some instances an error. In
the different stages of the acute form
and the first stage of the chronic,
best, may be admissible; but in the
continuation of the chronic form,
some exercise is necessary to free not
the powers of life. The exercise should
be as gentle as possible. The little day
fever is not capable of sustaining
more than gentle exercise, and the
are times he cannot sustain even
the gentlest. It is impossible to walk
otherwise than an invalid, and walk
ing several times around his chan
ber at home would probably be up
present, but attempting however to me

the desired end. By this means the
circulation is increased, it appears to
be to the patient, it relieves the
tedium of confinement, and places
the leg in a position it might not
otherwise attain. Perhaps the best
guide for this mode of treatment
would be the general condition of
the health of the patient. When his
general health begins to fail, (which
I think is the result of confinement
and want of exercise, as well as his suf-
fering) might not the bath suggest
to be adopted? When fresh bath
needed, and the swelling is becoming
extensive from burrowing of the con-
fined matter, Nature's intention
should be forwarded, and
an artificial opening should be
made; for it is well known that
confined fluids exert such pressure

as to insure movement to the, but
above the fragile structure of the
bone. Taking it for granted
an opening must be made, the most
dependent point should be selected,
so as to relieve upward pressure, to
effect the easy discharge of the fluid
to act as a valve to exclude air &
setting up a drain remote from
its source, revulsion might exert
a beneficial influence. Counter-
irritation by means of an issue or
seton, might be tried at an early stage.

Great attention should be
paid to diet; nothing heating or gross
should be allowed. The patient
should confine himself to the light
est, at the same time digestible and
nutritious food. Paying attention
to the secretions and excretions,
also climates &c, are important

[illegible] [illegible] [illegible]
[illegible] its coast" and only afford
aid according to circumstances

An

Inaugural Dissertation

On

Acute Laryngitis

Submitted

to the examination

of the

Provost, Regents and Faculty,

of Physic

of the University of Maryland

for the degree of

Doctor of Medicine

By,

Henry E. Todd,

Som. Co.

Md.

Croup

This disease was formerly confounded with croup, but through the investigations of modern Pathologists it has been found to be entirely a different disease, for in croup the Trachea ~~is the~~ is the part which is principally affected, but in this disease the Larynx is often the only part diseased. It is divided generally into three varieties, the Mucous, Submucous, and pseudo-membranous, but I shall confine myself principally to the Submucous variety, — — — — —

Symptoms — It usually commences with a chill or chillings, which is soon followed by fever, the pulse is full

the skin hot, and the face flushed, the patient complains of his throat and if it is examined the tonsils, uvula, and pillars will be found inflamed; there will be great difficulty of deglutition on account of the sudden state of the epiglottis, which does not accurately cover the orifice of the windpipe but admits substances in to the larynx which cause great irritation and paroxysms of suffocative cough. The breathing is very much interrupted and as audible as if it were drawn through a dry and narrow reed. The cough in this disease

has a peculiar character it is hoarse and more sibilant than in croup. She is unable to cough loud as in Pulmonary diseases, the expectoration is viscid, scanty, and transparent, constriction across the chest is oftened complained of, the voice is at first acute and piping but gradually becomes hoarse and in some instances is totally suppressed. The patient is exceedingly restless and anxious, moving from place to place desiring to get fresh air, His countenance is pallid, lips purplish, eyes protruded, and watery. –

and the surface of his body cool, his hands are continually applied to his throat, directing the physician to that as being the chief seat of suffering, which is almost unknown to him or if he does he suddenly starts up in a state of great agitation, gasping for breath. If the disease still continues to progress the pulse becomes frequent, irregular and weak, he grows feeble, drowsy and is often delirious he then becomes comatose and finally dies by suffocation.

— — — — — — — —

Causes — Of all the exciting causes of this disease, exposure to cold and moisture is the most frequent, it is also sometimes caused by Physicians attempting to introduce the stomach pump, as in a case of poisoning or intoxication, also external violence such as a blow on the neck may prove an exciting cause to this disease; the swallowing of hot water or corrosive liquids, the inhalation of hot air, irritating gases or vapours also act as exciting causes; it is also produced by other diseases.

such as Measles, Small pox,
Erysipelas or Scarlet fever.
it is also sometimes the
accompaniment or sequel of
Typhoid fever, too frequent or
powerful exertion of the
lungs is sometimes the
exciting and often the
predisposing cause. ———
Aneurism of the Aorta
is said sometimes to cause
this disease by the in-
flammation of the Bronchi
which it gives rise to ex-
tending up to the Larynx.
Intemperance is often a
predisposing cause, Age is
supposed also to have some
influence over this disease
it occurring more frequently
in old and middle aged persons,

Diagnosis — It is of the utmost importance that we be able to recognise this disease for in the beginning so we often able to cure it —
We must be careful not to confound it with diseases of the chest which are sometimes accompanied with severe dyspnea, but they are generally accompanied with such obvious symptoms of heart disorder that there is scarcely room for mistake; — besides in Angina there is a peculiar feeling as if something was lodged in the throat, a change of voice, and a difference between the facility of inspiration & expiration —

50

Prognosis — This is generally unfavorable, especially when the countenance expresses the pallid and livid hue, the lips purple, the eyes prominent and rolling, and the surface of the body cool accompanied by lethargy and stupor.

But if the pain about the throat begins to abate, the swelling to subside, the breathing to become easier, the fever to lessen, the expectoration more free, and the body to get warm then our prognosis may be more favourable — — — — — — — — — —

Prognosis — This is generally unfavorable, especially when the countenance expresses the bullet and livid hue, the lips purple, the eyes prominent and watery and the surface of the body cool accompanied by letharg and stupor. But if the pain about the throat begins to abate, the swelling to subside, the breathing to become easier, the pulse to lessen, the expectoration more free, and the body to get warm then our prognosis may be more favorable — — — — — — — — — — —

Appearances after death — The Epiglottis is found to be thickened and red, the mucous membrane of the Larynx and Glottis is usually softened and thickened, and underneath the mucous membrane is an infiltration of sero-purulent fluid. — Coagulable lymph has been found on the free surface of the mucous membrane and is occasionally found effused in the sub-mucous tissue. — The two phenomena which almost invariably characterize the Pathology of this disease are first inflammation and some thickening of the mucous membrane 2nd. Oedema which

latter, that although it cannot be called peculiar to this affection, it is a very unusual attendant upon any other disease of the mucous membranes. ———

Treatment — In slight cases a mild purgative, such as Sulph. Magnesia, a solution of Alum for a gargle, and confinement to the house, is often sufficient to avert the disease. But if the disease increases in severity the patient should be treated antiphlogistically, blood should be taken from the arm, leeches applied to the throat, and sometimes cupping on the side or back of the neck -

Calomel should be given in combination with, or followed by another cathartic to insure its operation on the bowels, they should be kept open by saline aperients — the system should be brought slightly under the influence of Mercury, in order to accomplish which we may administer Calomel in small doses frequently repeated — in combination with Opium or Opiate, — Counter irritation should be kept — up by means of vesters to the nape of the neck or by rubbing Croton oil or Tartar-emetic ointment on the throat, it is sometimes also beneficial to give

Tartar emetic in nauseating dose, and should spasm of the Glottis accompany the inflammation, the system should be kept moderately under the influence of Antimony, in conjunction with Goelin. — The patient should be forbidden to use his voice, he may apply a poultice containing a small proportion of mustard, A solution of Acetas Plumbi or Cupri Sulphas may be useful applied externally. Opium or Hyosciamus may be given at all, the cough, But sometimes in defiance of all our treatment the disease still progresses and we are driven as a dernier resort to the performance of Tracheotomy. — —

H. W. Todd

An
Inaugural Dissertation
On the
Philosophy of Diseases
Submitted
to the
Examination
of the
Provost Regents and faculty
of the
University of Maryland
for the degree
of
Doctor in Medicine
By
Edward Priestley
of
Baltimore City

What is disease — It may be defined to be a derangement of the body or one or more of its functions, or to express in fewer words any derange-ment from the natural state of the constitution —

The causes of disease are commonly arranged under two heads - viz. predisposing and exciting - A predisposing cause is any thing which has had such a previous in-fluence upon the body as to have rendered it unusually susceptible to the exciting cause. - It is sometimes difficult or impossible to say of a given cause whether it ought to be ranked among the exciting or

predisposing causes - whether it has prepared the system for being effected by some other agent or whether it has itself produced the disease. But as a general rule the deterioration is obvious and it is very desirable it should be so as the disease may be averted even in its most threatening aspect by timely removal of the cause -

The exciting causes of disease are many and various - whatever ministers to life, health or enjoyment may become the medium under changing circumstances of pain, disease and death - If we look to atmospherical causes, those varieties in the state of the air, which proceed from mere differences of degrees

in temperature or its natural qualities, such are extremes of heat and cold sudden variations of temperature, excess of moisture and dryness &c &c,

Again the atmosphere may be a source of disease in consequence of its being loaded with impurities, Malaria, contagions of various kinds and noxious gases in general may be considered as so many causes,

Under head of nutriment we may place the use of foods of which the quality is bad and hurtful, Excess in eating or drinking are very common causes, Another great class among the causes of disease are the numerous trades and avocations which are directly in-

pernicious to the health of those who pursue them — The circumstances unfavorable to health and life in the barbarous countries are uncertainty in the supply of food deficient protection from climate and weather ignorance of the laws of the human constitution and of the medicinal virtues of natural substances, Now the development of the human faculties and resources should meet all these requirements; — improved agriculture should render the supply of food more certain and more wholesome: improved architecture and manufactures should afford more adequate protection from the weather; increased

acquaintance with physiology should enable man to regulate himself more in accordance with ~~xxx~~ the laws of his being; and a wider and more accurate knowledge of nature should enable him to contend more effectually with disease, And as it is actually the case that in civilized life we have a better supply of food, clothing and habitations, and a better acquaintance with physiology and medecine the question would naturally arise in our minds - Why then have we not fewer diseases -

In the first place our very abundance is a snare, Because we possess superfluity we indulge in excess, from sufficiency

we pass to luxury; from adequate pro-
tection to effeminacy, Because we are
not compelled to constant exposure,
we shrink from so much as is necess-
ary to harden us against inevitable
atmospherical changes, Because we
are not kept in continual exercise
in pursuit of food we sink into in-
dolent repose or exert ourselves merely
to the extent that does not interfere
with self-indulgence - Because we
have some knowledge of medicine
we fly to it on every occasion, and
by our impatience of trivial indisposition
we establish artificial and permanent
maladies,

2 In the second place our extended

intercourse with distant quarters of the world enables us to accumulate the productions of every clime and our desire for gratification induces us to extract it from every source; hence we adopt the productions of all without consideration; and whereas the tartarian is confined to the use of those articles which are indigenous to the same climate as himself, and thus are pointed out by nature and his own instinct as his proper food — the man of refinement and luxury combines the produce of the most inconsistent climates and subjects himself to their influence, To sentence the Esquimaux

to live on fruit and other productions of the torrid zone would be so far to transpose the circumstances of each as to peril their lives and almost infallibly to injure their health, and for the inhabitants of the colder districts of the temperate zones to use largely the produce which nature has said before the inhabitants of the tropics cannot fail to have analogous effects it is true that man becomes habituated to every climate and to every diet. but this does not prove that he would not enjoy longer life and greater immunity from disease in one climate and under one diet than another — In the

third place the tyranny of fashion combined with some very ridiculous and foolish fashions which are exclusively confined to civilized society tends to lower the standards of health, modes of ~~health~~ dress habits of exercise, periods of meals, degrees and kinds of occupation are regulated without any regard to individual necessity, Young persons, particularly females, who by a life in accordance with nature, might have enjoyed health are by the requirements of fashionable education doomed to a sickly and constrained existence, no part of the animal economy is allowed full play and a constitution weakened in early life

by forced studies and insufficient exercise are destined in a stage or degree more advanced to go through the ordeal of late hours, light and unequal dress, stimulating diet and almost total want of serious and systematic occupations.

I think I have now (though I fear very imperfectly) very briefly stated some of the principal predisposing and exciting causes of disease, I say very imperfectly for the reason I think very much more could be said on this very important part of the subject and that too with but little mental labour, though as my space is limited and my time

much more so I will now have to enter directly into the considerations of the means we possess in restoring our patients in the most prompt mild and permanent manner; and in removing and annihilating disease by the shortest safest and most certain means with the least possible inconvenience or annoyance to the system that has to succumb under the above named causes.

The first thing respecting the treatment is to remove the cause and if every known cause which tends to repress the elasticity of life be carefully removed the force inherent in the organism

is often sufficient to restore by its own reaction the normal state, This effort of nature is called the "vis medicatrix naturae." in particular cases when there is a determination of blood to certain organs or a distension of the vessels this reaction is much assisted by certain evacuations, bleeding or vomiting for example, In many instances however the reaction of life is not sufficient, unaided, even when relieved locally by these evacuations, it does not posess the power to restore ~~of~~ the normal state, it is often paralyzed at once and offers no resistance, ~~&c~~ or after a struggle more or less severe it yields, and if

it does not receive efficient assistance in time life will be extinguished, It is in these cases when it is apprehended that nature will be of itself insufficient that medicines becomes necessary as an auxiliary, The Creator of man has endowed many substances with power to act in various ways on the force of life, All of them without exception, possess the property of disturbing the harmony of its action, and by this very property are enabled to produce changes and modifications of the organism, These substances are termed medicines, and the art of medicine" is the art of selecting that one which

is suited to each case, - that one which with the least possible risk or suffering or consequent injury to the patient will restore the harmony of the organism in the least possible time, In the administration of medicines when considering the vast changes they are capable of producing in the organism, it will be granted that the greatest caution should be used in the administration of them, Gifted as they are with the faculty of affecting the health to an extent of which those who prescribe them are probably quite unaware, no risk can be run in asserting that they should be employed only with the greatest discrimination

that none should ever be exhibited excepting such as are adapted to the case and those in the very smallest quantity which not guess but experience shall teach us is necessary, To employ any unnecessary medicine, or any suitable one in needlessly large doses is to say the least of it, to produce changes in the organism without advantage, often irreparable, always dangerous and to trifle egregiously with the most distructive instruments,

In the next place the removal of the symptoms of which a patient complains, with the least possible suffering being the one and only object of the physician and this removal

being only to be effected by certain sub-stances which divine providence has gifted with certain properties of acting on the living organism, it is the duty of the medical attendant and it ought to be the chief end of his education and object of his whole study to make himself intimately acquainted with the nature, properties and powers of each one of these substances, The tendency of the labours of his life should be not foolish speculations, but to determine rigorously wherein, under what circumstances and to what extent each of those substances possesses the power of affecting the human organism. He who prescribes a

a medicine before he knows the whole power it possesses of exciting disturbance in the organism is as unfit to be trusted with such dangerous instruments as a boy who knows not the effects of gunpowder with a loaded gun,
We all know that whenever an improper medicine is administered or a proper one in improper quantities an artificial disease is excited by it proportionea in intensity and duration to the size of the dose and the length of time the use of it has been continued,
How much of the disease existing in the world has been produced by natural mortific influences and how much has resulted from the inconsiderate and

improper use of medicine it might be difficult to determine, we cannot err in asserting that every grain of medicine taken beyond what was necessary to effect a cure has been productive of suffering for which he who prescribes it is alone responsible, when we recollect the wasting deluge of drugs with which the uncertainty of the art of Medicine has enabled every ~~vile~~ wretched empiric to flood this country, with the Sanderson's Sarsaparilla, Hooker's panacea, Grandmothers nostrums, and heste of other ridiculous quackery we cannot but believe that much of the suffering to be found in this country is due to the abuse of those very substances which

a kind Creator has provided for man's restoration. Above I mentioned but very few of the different modes of which the people of this country are humbugged. I cannot close this thesis without devoting a few lines to this very frequent causes of mortality if not disease. I mean the extent to which the different modes of quackery are tolerated in this country. The true art of healing as taught and practiced in this middle of the nineteenth century professes to be and is the result of the accumulated wisdom of three thousand years, during all this period the profession has been engaged in investigating the science of life, the conditions of health

the causes of disease and the means of cure, Many thousands of men in many countries and in all these ages, have made this the business of their lives; and in consideration of their devotedness to this great work they should be honoured and rewarded For medicine is a noble profession, a divine art a glorious science; Look to our own city no where is the medical profession more numerous in proportion or more respectable, We have two medical schools, one which ranks among the highest in the country and in point of advantages has but very few equals and no superiors in the world, We have also infirmaries hos-

pitals and dispensaries, let us re-
turn for a moment to the result, let
us ~~xx~~ ask what might be expected
of such a body of men - so learned, so
wise, so benevolent, & so well organised,
Might we not expect to find the
population of this city surrounded
with all the conditions of health,
fully instructed in hygienic principles
and never ignorantly violating the
laws of life. Might we not expect
a pure and healthy atmosphere,
free from all pestilential nuisances;
perfect ventilation in all our pri-
vate dwellings; markets carefully in-
spected and supplied with nine but
healthy food, such a state of things

would be worthy of the medical profession and such would be the natural result of the public properly appreciated the science and did not sanction the many modes of quackery now in existence, for as it now exist they have neither the disposition or power to carry out the dictates of their wisdom, Every species of quackery should be suppressed whether countenanced by regular graduates or not, whatever law they recommend respecting medicine should be passed - whatever they advise should be speedily accomplished, and if then thier is no diminution in the bills of mortality, We will exclaim it is the will of God it should be as it is, But to the

extent that quackery is carried in this country we cannot but attribute to a considerable degree the great mortality, I noticed in the report of the city inspector of New York that during the year 1849 there died of various diseases in that city over twenty two thousand and of all that number only two hundred and ~~x~~ twenty four died ~~of natural~~ old age, All this sickness, pain and distress cannot entirely be attributed to the imperfect condition of medical science, But the causes remain and the consequences will be the same while we are surrounded by death dealing nuisances, and upon this we must charge

this terrible mortality, But for them and the trust reposed in them, it would have been prevented, they have kept the people in ignorance, they have taught them to place a blind trust in the administration of poisons in a thousand deadly combinations, To this we attribute the potent cause of the pervading disease and premature mortality that effects this community, We charge upon this quackery as sanctioned by our legislatures and fostered by the public in general the diseases which fill our city with tribulation and this frightful array of mortality which makes our dwellings resound with lamentation and wo,

Where all might be joy and comfort
and health. medicine by its acts and
its neglects brings sorrow and desolation
and spreads the pall of mourning
over the innocence of childhood,
the loveliness of budding womanhood
and the strength and maturity of
Man –

A Inaugural Dissertation
on

Menstruation.

Submitted
To The
Examination
of the
Provost, Regents and Faculty of Physic
of the
University of Maryland
for
the degree of
Doctor of Medicine

By
Geo R Cooper
Baltimore

To Richard H. Thomas M.D.

Prof of Obstetrics & Diseases of Women & Children.

This Thesis is most respectfully dedicated, as a mark of respect for his untiring zeal and exertions, in his successful efforts to impart sound and practical instruction to the medical students. and admiration for his private virtues as a man. by

Geo. R. Cooper.

Gentlemen, the time having arrived in which it becomes necessary for me according to the wise regulation which exists in your School to submit to your examination a thesis prepared by myself, I shall after having rejected many subjects which have been presented to my mind; endeavour to discuss the function of the Unimpregnated Uterus — Menstruation.

The menstrual discharge occurs only in the human female, though a period has been noticed by some physiologists, which is marked by hyperæmia of the organs of generation of the female in the lower order of animals. In some species a sanguineous discharge has been manifest.

This function, one of the most important

; the whole female sensorium feels powerful and modifying influence over her whole organism; its power in this respect is as much perplexing to the medical practitioner and interesting to the physiologist.

The period of its commencement in the young female is marked; the time of its duration important in relation to Uterogestation; and its close has been looked on, - though improperly - as predisposing the female constitution to peculiar diseases. With the commencement of the aptitude for procreation in the female certain changes take place in her constitution chiefly connected with the system of reproduction. The external and internal organs of generation undergo a considerable increase in size. the womb enlarges both in length and breadth; the os externum Uteri is more distinct to the touch, the ovaries also increase in size and vascularity. Even the foundation the bony

Structure which surrounds them, and which could not have designated the sex of the subject because although it is big and firm, the ala of the Os ilii expand, the arch widens and the whole pelvis assumes its peculiar and characteristic form. The voice also undergoes a modification though not so great as in the male, the larynx not widening to the same extent. A deposition of adipose matter takes place over the whole surface of the body, "giving to the female form that delicate roundness which has always been the admiration of the sterner sex". This deposit is especially evident on the pubes and a luxuriant growth of hair is manifest on the Mons Veneris and Vulva.

The Mamæ also become more fully developed, instead of being as heretofore loose and flabby, they are hard and tense and capable of rousing into action by the sympathies of the

impregnated uterus. The general symptoms are in nothing so local the conversation is more agreable and marks a greater development of the mental faculties, the woman bearing is more dignified and ladylike and a delicate modesty characterizes her acting. These changes all pointing to an adaptation for other uterine functions.

The age at which this discharge first makes its appearance is by some thought to depend on climate, the females of the tropics being supposed to menstruate much earlier in life than those of colder climates.

The observations however of Dr Robertson of Manchester would lead us to the conclusion that it depended more on the mental and bodily habits of the individual, the discharge appearing earlier in those who are addicted to luxurious and sensual habits than in those who live more laborious lives.

The discharge usually commences in the country between the 12th and 16th year, and generally continues about 30 years, a period favorable with not interest to the sex as fitting her for the discharge of more important functions.

The accompanying symptoms of the first discharge are in some cases trivial, in others they are more marked generally there is a feeling of lassitude, malaise, headache, pain in the loins along the thighs &c. which all disappear entirely after the flow comes on.

The discharge in some females is marked with great regularity, some being able to predict and prepare for it appearance almost to the hour; in others it is not so constant. Those females who are regular menstruate once in every 28 days — a lunar month — or 13 times in a year.

The quantity ever varies in different

females and depends perhaps on habit, mode of life, and climate. The practitioner should not mistake the fact that every female has a quantity (normality) peculiar to herself and that which would be excess or a pathological in one individual would be healthy in another.

The great and becoming delicacy the female manifests on this subject should suggest to the young practitioner the necessity of caution in accosting his patients in relation to this function.

The older authors entertained the opinion that it was a secretion from the lining membrane of the uterus; that it contained no fibrin and hence incapable of coagulation. If this we think there is good reason to doubt for from the observations of Madame Boivin it is rendered highly probable that it is in fact blood, merely contaminated

with the ordinary secretions of the uterus and vagina, and that it obtained some opinion each alternation it was again among the vessels, and the power of coagulation and containing undue fibrin.

Our certainly we believe is entitled to credit who of all those had the best opportunity of examining the flow in its normal condition. Other physiologists being compelled to content themselves with observing those cases which were not strictly speaking healthy but abnormal deviations. Hence we think it may be proper to infer that it is a periodical flow of blood from the uterus.

The causes of menstruation both "efficient" and "final" have given rise to much discussion, much has been said in the endeavour to account for the phenomenon, 1st that the lining membrane of the uterus is the agent (not as a secreting

[illegible]) and the [illegible] the stimulus
is [illegible] to [illegible] the [illegible] [illegible]
among our [illegible] physiologists.

In what manner the ovum excites
the uterine discharge is rather more vague
and admits perhaps of more discussion.
The observations of Dr Lee have led him
to the conclusion that the stimulus is de-
rived from the bursting of an ovisac and many
have adopted with him the opinion that the
excitement is produced by the evolution of a
matured ovum. We cannot however wholly
reject the statements of other reputable observers
and their experience would lead us to modify
the conclusion of Dr Lee. Dr Ritchie says
"that although such a discharge from the ovisac
takes place most frequently at the menstrual
period yet that the two occurrences are not
necessarily co-existent, or menstruation may
take place without any such rupture

which, on the other hand, the maturation and discharge of mature ova, [illegible] in the intervals of menstruation, and even at periods of life when that function is not [illegible] performed". That the ovaries play an important part in the function, we think can rarely be doubted.

[illegible] cause is has been said to be for the purpose of preparing the organ for the state of conception.

Whether this be wholly true or not, the healthy performance of the function has been looked on as evidencing an adaptation for another and more important uterine function.

An
Inaugural Dissertation
on
Pneumonia.
Submitted to the examination
of the
Provost, Regents and Faculty of Physic,
of the
University of Maryland,
for the degree
of
Doctor of Medicine,
by
Robt. Craig,
of Charles County
Maryland.
1851.

Gentlemen.

Since you have thought it respectful and proper to attach your name to my recipe, I may venture to apply it for the benefit of others. What you may deem as a testimonial of gratitude of the Husband & Parent, it leaves me to offer sometime which may be with them, hence I do use upon a decent blank & endeavor to make it go.

In the country, as in the Metropolis Malaria that visit and too often destroy human life. In the in this dust atmosphere is more to be deprecated, and indeed may a larger portion of it contains the germs of a fatal disease. I am attached to my constitutional Remedies.

It would be useless and presumptuous in me, for me to attempt "to say any thing new, on this subject", after reading the works of Lynch, Dewees, Williams, the Eminent Williams, & others, of eminence, after years of reading, study, theoretically and practically, have given nearly the same treatise, differing only in a very few particulars. In these few, I would presume to give as my opinion, which of these things are more entitled to respect, and to be received in medical practice.

But to commence the subject. The first inquiry to be made is, what is the nature, use, & office, of the viscus that is inflamed, the manner in which, I will briefly state its component parts, and the important office and function which this is destined to fill and discharge.

The pulmonary tissue is the conveyor or medium between the blood, being of membraneous and glands.

cortex are, these cells are divided into separate and distinct compartments by very delicate, not fibrous, cellular tissue, and these groups, or cells, may be easily separated from each other by dissection, until at last we arrive at the pedicles by which they are united into a common mass.

These groups of cells constitute what has been denominated by Anatomists to be the **Lobules of the Lung** and the cellular tissue uniting them the **interlobular tissue**. Each lobule then is a small lung and may not independently of those by which it is surrounded.

The pulmonary lobules vary much in shape, resembling a pyramid, the base of which lies at the surface of the lung. The lung then is a collection of an immense number of lobules placed along the bronchial tubes, and pulmonary vessels

would be ramified upon the partitions so as to form the upper tissue of the lungs; Besides this tissue, we have the ramifications of the bronchial tubes which terminate into what I have endeavored to explain to be the pulmonary air cells; also the divisions of the pulmonary artery and veins which as I have before stated consist of one the walls of these cells, branches of these and veins, lymphatics and nerves, all of them held together by areolar tissue, form the parenchyma of the lungs. Believing that a minute investigation of all the different component parts of the lungs would be both uninteresting and unprofitable, I content myself with the rudiments anatomical view & description that I have given. I will now state in

of deep a manner as that of the office of this important organ. Motion has truly and beautifully defined it to be, "one of the legs of the tripod of life, which fail, if in any degree, should become diseased, or materially weakened, the structures would inevitably totter and fall to the ground." And to call a bounding metropolis may be likened to a heart which expends and throws off all impurities from the grain, is one of the most important outlets for the refuse matter; which, if allowed to accumulate, would exert a deleterious influence upon the general economy; it is the machinery which filters the blood and renders it fit and suitable to fulfil the all important purposes of nourishing, building and sustaining the fabric which

provided by spontaneous death corpuscles in the slightest degree impaired and intimately. All the blood is constantly passing through the lungs; the venous blood is brought from the systemic, and the chemical change is thus effected in the shortest possible time. The change from venous to arterial blood is effected somewhat in the following manner — air is inhaled into the lungs through the bronchial tubes, partly with a portion of its oxygen, which passes through the air cells and walls of the blood vessels, unites with the venous blood; at the same time, carbonic acid gas leaves the venous blood, permeates the walls of the blood vessels, air cells, and mixes with the air. This interchange of products alters the color and character of the blood.

been confined to certain, varying of this disease, or the different conditions of any state which may be in general for the attack from disease in the affecting [illegible] is marked at certain [illegible] the character of the receiving causing fever or general [illegible] other system.

The most common form by far, is that, in which the inflammation extends continuously affecting a whole lobe, or even a whole lung; this is the form to which the term Pneumonia is usually applied, but for the sake of distinction shall call this variety Lobar Pneumonia. Again small isolated portions of the lungs are influenced such as lobules, or parts of lobules, with healthy lung intervening. In this case, the consolidation is nominated Lobular Pneumonia. When the inflammation extends and affects both lungs

cinal remedy, which is very rarely the case, has relieved the affection of double Pneumonia. When it is confined exclusively to the air cells, (which I might as well state, it still more rare than the last form I mentioned,) it is distinguished by the name of Vesicular Pneumonia. But lastly, when the inflammation is seated in the interlobular tissue we call it interstitial Pneumonia. These are the usual names given to the various affected forms of Pneumonia. When the Pneumonia is found in connection with a long portion of the pleura, it is termed Pleuro Pneumonia. The idea of the inflammation to be associated with a Sporous or Bilious condition, we name respectively Sporous & Bilious Pneumonia. And in short it may be specific in character. After mentioning the different

neither of inflammation to or death. The lungs are visibly to be affected with. I desire of regard to investigate the anatomical character and the typical lesions which have been discovered in the different stages of these several varieties; for as Hood has justly observed, without a knowledge of these, we can not properly appreciate the value of many of the symptoms.

First Common or Lobar Pneumonia. There are three well defined stages in acute ~~[illegible]~~ pneumonia. The first stage is, that of congestion, the substance of the lung is congested with blood or bloody serum. All the distinguished gentlemen I have mentioned agree both as to the nature and as to the name of this condition. In this degree the lung presents externally a bright or violet hue, and is more solid

and heavier than naturally, but notwithstanding still floats the water; it still exhibits under pressure through depression in water; but feel on pressing it returns the finger, to contain more liquid than air in its cells. It retains the consistence of the larger size and sedimentary tube; when the engorged portion is cut into, there exhibits a copious ~~exudation~~ secretion of bloody, turbid, and decomposed floating tissue; the cells are not yet entirely obliterated, though somewhat obstructed by infiltrated fluid, so that we can still discover irregularly, the natural alveolar and spongy texture of the tissue, except in some points where the obstruction is dense and compact, indicating clearly the transition from the first to the second stage. The tubercle is at this time, time consolidated;

it is more extensive, and likewise that seated in the pleura, and accordingly, has been denominated pleuro-pneumonia of the lungs. In this state of congestion, the mucous membrane, of the small bronchial ramifications is of a deep red color. This stage of the disease may be very easily confounded, with what is present in the lungs of some time left of the south Atlantic marines, and the one will necessarily be referred upon the disease upon inflammation of the lungs, since the two kinds of congestment can scarcely be distinguished by their anatomical characters alone. The situation, together with the antecedents of patient, in most cases, be sufficient for us to diagnose the two conditions; such is the state of the lungs in the first stage, which usually lasts from 12 to 24 hours.

If the disease be arrested in this stage, the lung recovers its lost elasticity, but if it passes into the condition which I shall now describe as the second stage, which has been officially named by Laennec red hepatization, the lung is still not entirely lost pulmonary function, and in the first stage this increase I will continue to say increase of the strange liquid blood can longer when it is present and sustained for any length of time in its course. The density of the lung is so much increased that it will no longer be supported by water, but immediately sinks; there is no longer any crepitation on the pressure, and the finger may be carried through the parenchyma with little resistance, showing it has undergone a great degree of softening.

When cut into the lung bears a striking resemblance to the liver, so much so that most of the old writers have called it the liver of respiration. Perhaps have adhered this effusion ought actual, I, I must presume to say, has been given rise to his distinction, and his reason for differing with Laennec and a host of other authors is insufficient in my humble judgment to alter the long established and right of applied terms above mentioned to be changed. If fresher there still flows an some redish fluid, which is thicker, less frothy and in less amount than that observed in the first stage. Showing by this, I think, that the quantity of serum is increased, and that of lymph increased, and the air which had rendered the blood frothy is now entirely shut out, and also find the air cells filled and

attended with concrete albuminous fluid, presenting the appearance of a multitude of minute granules.
Dr. C. J. Williams, still, is with the Gottingen and attributes to the cause of this granular appearance. The latter Gottingen attributes this granular aspect to the obliteration of the six cells, as there have stated, with mass of sanguineous fluid; and attributes, to the other opinion and corroborate their opinions, says, that a similar phenomenon may be produced by injecting gradually in to these cell some fluid, so simple and easy an experiment producing such a probable result, has led me to coincide with these Gentlemen, and therefore to doubt the high & learned authority of Williams, who says after many minute examinations he is compelled to differ; and attributes this singular appearance to the deposition of a soft albuminous

matter not in the air cells themselves, but in the membranous tissues composing their walls, and in, together with the increased size of their blood vessels their cavities are obliterated. This general appearance however is not always observed, and its absence has been attributed to that form of pneumonia which I have mentioned as interstitial pneumonia where the obliteration is situated without the air cells. As there is no air in the lung in this stage it will not collapse when the thorax is laid open, and will therefore will appear to be increased in bulk; but science has denied any such increase. I should suppose that owing to the congestion of its cells, or to the effusion of blood, or some of its constituents, there would be a slight hypertrophy.

The third and last stage is characterized by frothing of the mucus, and yellowish or greenish appearance, but a thousand records are yellowish, opaque, frothy fluid, sometimes tinged with the blood, it is much softer too, than in the second stage so that the slightest coughing force will be sufficient to crush it down and produce a cavity in its substance, which may be easily mistaken for a abscess. This other condition of the lungs prompted Laennec to call it the hepatization; Although should be very rarely found to be the result of inflammation of the lungs, yet we do occasionally find it in the third stage of this disease. Watson has very beautifully and ingeniously accounted for this very remarkable circumstance, and I have not the least doubt

but also by inflammation is a common and indisputable one; it is at least so, in my opinion, in gangrene. He accounts for it in this way, viz. "the air passing into the surrounding cellular tissue, and mingling after a time with the inflammatory fluid, tends to increase the inflammation, and so, as well as accumulation, is formed by the coagulable lymph, as is the case in scalp wounds, where it is not accessible to the air." Gangrene is sometimes, but also very seldom, the result of acute inflammation of the lungs, and when such is the case, the color of the part is characteristic of such a result, being of a dirty brown, or greenish blue. The gangrenous portion is moist, spongy, and, sometimes, of the consistence of the surrounding lung, & recommend [illegible]

fatable — and, in the most abominable, this horrible odour is one of the most distinctive and conclusive evidence of uremic result during the last stages of this disorder.

The three different stages and conditions above described are sometimes but not always distinct: they are more frequently intermingled than otherwise. Sometimes one lung is inflamed in the third stage throughout its whole extent, while the other contains only some portions in the first or second degree; frequently these degrees are seen in the same lung at the same time, dividing it into as many zones strongly contrasted, or gradually fused insensibly fading into the other. The transition of one stage into another is marked

of the occurrence of hepatization of the more ~~or~~ advanced lobes amidst a part, which is only affected in the inferior degree; in this way the transition from the first to second stage is indicated by a red tissue containing much pus, and bloody serum ~~but~~ and cavitating, interwoven with which lies some portions of a dark color, much more dense and not at all cavitous, containing less fluid, and presenting the incised. Most common is Lobular Pneumonia. This form is seldom met with in adults, but confined almost exclusively to children under six years old. As the name indicates, we expect to find the inflammation confined to one or more of the lobules of the lung and infiltrating, bounded by the interlobular tissue, through rea=

[illegible] with the
[illegible] so
that the limits can not be
[illegible] before. The patches
of inflammation are exceedingly
in size, form, and position.
[illegible] the size of pillow
seen [illegible] off; roughly
round, elongated, or [illegible]
[illegible]; may vary from one to
fifty in the same lung; and
may occupy both lungs alternately
or at the same time, or what is
[illegible] may be confined to one,
and in either case [illegible]
in the posterior part of the lung;
in this respect we have [illegible]
what is called appearance,
produced by the contrast which
the red color of the inflamed
parts makes with the healthy structure.
They present the same
stages of congestion, red hepatization,
and suppuration

as occur in ordinary chronic pneumonia. Although these are more frequently met with in this variety of pneumonia, in consequence perhaps, of the double extent of the inflammatory patches. The pneumonia of children however is much more light, & those that of adults be, result from a participation of inflammation from the bronchial tubes to the pericellular structure, which fact renders it probable that lobular pneumonia generally originates in this way.

The third variety comes under the head of vesicular pneumonia — which is the case when the inflammation is confined to the air cells, and perhaps to small portions of the communicating bronchial tubes. I am under the opinion that this form would be more properly called vesicular bronchitis, for I have but little doubt:

but what the inflammation commences in the bronchial tubes, and thence extends to the pedicles or alveoli.
If such be the case Rilliet and Barthez were correct in describing as lobular bronchitis. When the lung is cut it presents a number of grey, or yellowish granules, of the size of a millet seed.

When pneumonia is associated with a low or typhoid condition of the system the pneumonia rarely advances beyond the stage of congestion, or if so, the blood-stained sputum, and yielding some of the plastic secretions, tends to give solidity to ordinary other pneumonia; this variety presents that condition which resembles so much the effect, in which the diseased portion thoughe gorged with blood and so dense as to sink in water, is quite soft

The pneumonia in such cases is commonly secondary or associated with other diseases of a low and febrile character, and of all diseases of this type we find it ~~associated~~ oftener connected with typhoid fever than any other, and for the reason penetrating the definition of Typhoid Pneumonia.

Fifthly and lastly, may be included chronic Pneumonia, this a result of acute pneumonia, consisting usually of abscesses which continue for many months before coming to a termination, but there is an other form of chronic pneumonia in which the hepatization consequent upon acute pneumonia, instead of undergoing resolution or suppuration, assumes a permanent character, — in such cases the lung is compact and heavy, sitting little after pressure and when cut exudes a little serous fluid

After examining fully and carefully the substance of the actions offered on the business of the past of these several varieties, I have to see that our next enquiry should be, what are the symptoms to be met with in these several stages and varieties.

I will first investigate those peculiar to Lobe Pneumonia. In other severe inflammatory pneumonia is accompanied by a rigor, which often commences in a rigor prior to any other symptom; and in some cases especially, where the pneumonia succeeds to a bronchitis, or when the first attack is felt in bed it is not observed at all, such as might expect to find the complication with typhoid fever, or cerebral disease; frequently a feeling of great depression and langor with pain in the back

and limbs, and a disordered state of the stomach and bowels lasting for a day after the attack. The fever is considerable, though not always very violent; and in plethoric habits is accompanied by great flushing of the cheeks, injection of the conjunctiva, headache, and other signs of local determination of blood: delirium more rare than occurs, and is usually an unfavorable symptom. The pulse often has a remittent character; the exacerbations occur daily, for the most part towards evening, and accompanied with increase of pain, cough, dyspnoea, and bloody expectoration.
Blood drawn from the arm is almost always buffed and cupped. The skin is generally hot and dry, yet occasionally moist. The urine deeply red, high coloured. The tongue is usually moist and coated, with a white or yellowish fur

but occasionally claiming to be good and
not unfrequently the patient is prostrated from
the beginning, but in Boston was kept
on his feet less than a day before going to bed.
There is pain in the chest which is present
varies greatly in degree, being sometimes
very intense, sometimes diffuse and
dull; often it is deep seated, for
most commonly the pain is felt
in the anterior part of the chest — below
the mammary, or under the sternum
though at other times under the scap-
ula. Andral has stated that
there is pain in the uncomplicated form
of pneumonia: though I do not believe
the pain, in pure pneumonia, to be
severe and lancinating; yet I must
differ with the learned author
and partially agree with Laennec
who asserts that there is frequently
pain, and sometimes a point of
sharp pain, when no pleurisy is
present. I say partially with the
latter author because I do not

believe it probable, that there is sharp pain in the uncomplicated form. I agree with Tavernier as regards throbbing sometimes felt in the ear. I find no reason why there should not be pain in this disease, it often bewilders. The pain is sharp pain in joints, but because the pulmonary tissue is spongy and consistency yet when the inflammation is extensive and intense, the nervous filaments are doubtless implicated and feel from the stretch which flexion will cause pain, though it be of a dull aching character, then of sharp stitch pain. Breathing is always quickened and the dyspnoea which is commonly an early symptom is a fairly good measure of the extent and severity of the disease; but we should be bewildered if we always trusted to the patient's feeling of breathlessness or dyspnoea. In its slighter degrees they are not dependable of it.

accompanied with difficulty of breathing amounting to the sensations of dyspnoea; but there are many instances where some patients the inflammation of a very small portion of one lung with only moderate respirations. Whilst in others who have a much larger portion of the pulmonary tissue severely inflamed, the dyspnoea is but slight.

The debility is always a prominent thing; and if the patient lies on the sound side it will be on the affected side; the cough is frequent for the cause when the pleura is complicated with pleurisy. Cough in a greater or less extent is almost always present in the course of the disease; however Dr Wood states that he has known it to be entirely absent for several days after the commencement of a very severe attack involving the greater part of the left lung: this varies also in degree being in some instances hilant

and painful, in others not at all and with little or no pain. It is usually dry in the extract, but in a few hours it is accompanied with the sputa which is peculiar to it, constituting as it does, one of the most certain, and I may almost say infallible symptoms of the existence of pneumonia; the tenacity of the sputa seems to increase with the progress of the disease. In the beginning the sputa resembles except in color nearly that of bronchitis; but as the affection advances its consistence is increased with its tenacity, so that at the vessel containing the mass may be inverted without displacing any of it. Now these sputa, which are looked upon as almost pathognomonic of pneumonia, are of a transparent and tawny or rust color ~~xxx~~ uniting in the vessel containing them into

more jelly like and trembling masses. Pneumonia may exist without such expectoration, but it may with certainty be affirmed when we do find such sputa we almost certainly have pneumonia; so long as this jelly like mass floats freely along the sides of the vessel when it rotated, so long we have reason to believe and hope that the inflammation of the lung has not advanced beyond the first stage. But as I have before stated the tenacity seems to advance step by step with the progress of the inflammation = so if the sputa acquire such tenacity, as no longer to separate themselves from the inverted vessel, then we may pretty surely conclude the disease has reached the second stage. In fact when the sputa becomes thus

ness and tenderness the stricken chest almost always returns a duller sound than healthy; the vesicular breathing is abolished and bronchial respiration takes its place. The pneumonia is then at its height, and the sufferer remains for several days thinking. At length if the inflammation recedes the sputa become again less glutinous, and transient, and also less red; but if the disease terminates the last colored sputa sometimes at the end; In the third stage there is usually less sputa.

After examining the general symptoms of any disease the next step is importance to be taken is, to investigate and weigh the physical signs; this precaution is especially to be observed in making a definite and correct diagnosis in pneumonia, for without such

preparatory step we can never certify beyond doubt as to the nature, and real extent of a disease. This delay is often obscure; and before the history of exacerbations and remissions can their whole course quite ascertained and therefore ambiguous. Cough and pain in the chest are sometimes wanting; and fever with headache and hurried respiration are the only observable phenomena; now these being common in other affections render them of but little avail when taken by themselves in this particular disease; but since the last and extensive researches and minute investigations in exploring and establishing physical signs commenced and nearly perfected by the immortal Laennec and after him the labours of

of an cathedral. Chanel and last though not least the name of Wil-liams will stand as lasting and imperishable ornament in the columns of medical science. And those have been will continue to justify the end of time, illuminators of the most brilliant character to guide, and teach, the ministers destined to give relief to the physical pain, and sufferings of mankind in general) = this disease, as well as most others of the chest, has become comparatively of easy recognition in all its grades and characters except, perhaps when the inflamation occupies an interior part of the lung, and is at the same time surrounded on every side by healthy structure; this seldom happens, and only shows the exception to a very broad rule = thereby proving the rule.

In the first stage of inflammation of the lungs — continuously with the usual general symptoms, before described — if the ear be applied to the chest it will perceive a peculiar sound accompanying the usual respiratory murmur; it is a fine crackling or crepitating sound, and can be imitated very accurately by rubbing a lock of one's own hair close to the ear: this is the crepitant rhonchus, and was considered by Laennec as pathognomonic of the first stage of the disease. The space over which it can first be heard is often very limited but when more advanced it may occupy nearly a whole lung. At the commencement of the inflamation, the crepitation is merely an addition to the ordinary respiratory sound which is still distinct; but as the disease

advances the expectant should first
wait more and more, until it is the
only sound heard; now this sign often
does not come than from 24 to 48
hours, after that time either return-
ing to the healthy respiratory mur-
mur or passing on to the second
stage. Now it may be asked what
is the cause of this peculiar sound?
not a few reasons have been given
in explanation of this phenomena,
and of these, the one, stated by
C. J. Williams, seems to me, to be
the solid and correct one = which
is this, he says 'that the distended
bronchi and the serous effusion in
the interstices press on the minute
bronchial ramifications and parti-
ally obstruct the ingress of air into
the cells to which they lead; whilst
the viscid secretion of the mucous
membrane simultaneously inflamed
filling the calibre of the tubes thus
narrowed only yields to the air in-

respiration forcing its way through it in successive bubbles this bubbling passage of air through liquid lying contained in an infinite of tubes of equally diminished caliber causes the true sonorous respiration in support of this opinion Dr Williams states that a similar sound may be obtained by pressure upon a sound lung, by such pressure the air is expelled from the tissue whilst the tubes and cells are so surrounded by the pressure that it can only pass out thence in successive bubbles, the escape of which produces a minute respiration; here no preternatural fluid is present, and therefore the sound can not as Andral would have us to suppose be owing to air making its way through fluid; for if such were the case — that is, if in the congestive stage of pneumonia, there have a serous

effusion into the air cells, there may at first be more or less of this serum mixed with the sputa, as we find in some cases of pulmonary oedema; but such is not the case, the expectoration in the beginning is a glutinous mucous, and instead of becoming more serous, it becomes in viscidity as the inflammation progresses.

This crepitation is different and distinct says Laennec, and afterwards Dr Williams speaks in unison with him, from the mucous rhonchus of the fine bronchial ramifications in bronchitis. In the first stage the sound elicited on percussion is somewhat duller than the corresponding opposite point. The progress of the inflammation is marked by the minute crepitation becoming less continuous and regular, and being confined principally to the end of each inspiration, in proportion as the crepitant rhonchus diminishes, the respiration, in the second

parts of the lung, becomes, harsh and like the respiration, hence called by Laennec puerile respiration. On applying the ear to the chest at this time, neither the ordinary respiratory murmur, or the crepitant rhonchus of the first stage can be heard; but the crepitation is succeeded by an other pathognomonic sign, indicating beyond doubt that the inflamation has progressed to the second stage — viz to that of red hepatization. This sound has been denominated bronchial respiration, and can be assimilated to blowing through a goose quill; and is somewhat of a blowing whiffing character, and occasionally so loud as almost to amount to a whistle. At the same time and ~~under~~ in the same place an other auscultatory phenomenon generally arises — viz the rhonchophony: now both of these sounds are produced by the solidification

of the lung. When we have bronchial respiration and voice, then we find on percussion a marked dulness = this dulness is modified by circumstances; if a portion of permeable lung should intervene between the infarcted surface and the walls of the chest, there will still be a moderate degree of resonance; if on the other hand the hepatized part be close to the ribs the sound elicited on percussion will be flat and dull. Now this stage is of painful and anxious interest. If the disease should at this time take a favourable turn, there where for a while we heard nothing but bronchial breathing, a slight crepitation can be distinguished, this gradually increases until it supersedes entirely the bronchial breathing and at length the vesicular breathing

mingles with the expiratory and modifies it.

But suppose the disease in this stage is not arrested, what follows, why the exudation with which the cells are filled in the 2d stage is replaced by pus constituting what has been denominated by Drs. Gray Hepatization. This may generally be discovered by observing that that the bronchial respiration is superseded by a mucous rale but most of the physical signs remain unchanged; we have the same flatness on percussion and mostly the the same respiratory sounds

Should an abscess be formed and opened into the bronchi a gurgling rale will be heard if the cavity contain liquid; and pectoriloquy and cavernous respiration if it be empty.

To revert to the ordinary symptoms should the disease yield to the treatment in the congestive stage = the pain disappears, the expectoration

becomes more abundant and more healthy, the febrile symptoms diminish, the tongue begins to clean, and convalescence may be established in a week. A fatal result very seldom ensues in this stage.
In far the majority of cases it passes on to the second degree, this generally comes on from one to three days after the setting in of the disease. If the inflamatio advances unchecked it will arrive at the stage of suppuration in the course of the second week as a general thing, occasionally earlier or later, as circumstances exist. When the pneumonia advances thus far, death is almost the inevitable result. The return to health, in this affection, is frequently marked by the occurrence of certain discharges which have been considered by a great many as critical = such as the following = = The urine is disposed to let fall

a deposit upon cooling, and to coagulate ~~the~~ by heat and nitric acid, thus showing the presence of albumen which is sometimes very abundant, copious perspiration, diarrhoea, epistaxis, also cutaneous eruptions. These symptoms only show that the disease, which has prevented the several secretory functions from acting, has been subdued, and consequently may be again restored to healthy action; and not as some have supposed to be the cause of the cessation of the disease; but undoubtedly the consequence of the desired change.

The third variety of pneumonia comes under the appellation of Lobar Pneumonia. This form is almost exclusively confined to children under the age of six, and for that reason, has received, the very appropriate name of infantile pneumonia, by certain pathologists.

Sometimes the disease begins with fever hard cough hurried respiration and pain indicated by the crying of the Child when he coughs. But more frequently the discriminated inflamation is not sufficient to cause the constitution to sympathise; or perhaps what is most frequently the case, the slight symptoms are confounded with some preexisting disease = such as catarrh, measels, & hooping cough, and thereby rending the diagnosis in the beginning rather difficult. But when the complaint has somewhat advanced, fever sets in, with very rapid pulse, frequent respiration, flushed face, often great restlessness & considerable cough which is, in some instances, hard and dry, in others loose, but generally with little expectoration: the pulse is seldom ever under a 120 sometimes a 140, and usually regular and even.

Should the inflamation advance the powers of the system sink. = the pulse becomes feeble, the voice can scarcely be heard, the pulse becomes exceedingly small and weak, the breathing is irregular and sometimes interrupted with deep sighing, the extremities cold, the face pale or livid and death soon takes place, usually preceded by a period of stupor and drowsiness, but should on the contrary the disease take a favourable turn all the symptoms begin to improve in a week and the child gradually gains health.

We can seldom learn in the beginning of the inflamation any thing from physical signs but ~~so that~~ at a more advanced stage they afford an indispensable aid in forming our diagnosis. The most characteristic sign is the subcrepitant rale which may be discovered throughout the disease and

in most or any part of the lung; and sometimes so fine as to approach closely to the crepitant; in the advanced stages bronchial respiration may be heard in the upper part of the lung, and there is an unhealthy resonance of the voice over the chest which may be considered almost pathognomonic of the disease. Percussion affords nothing in the beginning of the pneumonia, but in the advanced stages emits a dull flat sound on the posterior part of the chest. The general symptoms afford but little assistance in making out our diagnosis. Children seldom expectorate, and when they do, we do not find the sputum to resemble the characteristic sputa of Lobar pneumonia. But is more like the mucous of catarrh, it is also difficult to ascertain confidently whether they have pain or not.

The third variety from being associated with bilious derangements is called Bilious Pneumonia. The most frequent form of this complication, is that which occurs as an associate of remittent or intermittent miasmatic fevers. This disease is more prevalent in cold seasons, and is more frequently, than otherwise, found in the South-ern and western sections of the United States. The Pneumonia may be either primary or secondary. It occurs usually in the latter parts of autumn, in the winter or in the early spring-months. being produced in most cases by vicissitudes of tem-perature, acting on a predisposition, acquired by exposure to malarious influences during the summer or early fall; The pleura is often inflamed in connection with the above complication & for this reason has frequently acquired the improper name of Bilious Pleurisy.

The pectoral signs do not differ materially from those already described, consequently it is unnecessary for me to mention them again. When the complicated disease is established there usually, besides the symptoms of pulmonary inflammation, more or less of the following derangements: his head ache, a yellowish, or yellowish white fur on the tongue, nausea and vomiting; sometimes of bile, at other times of the ordinary ~~of the ordinary~~ gastric fluids. The urine is of a deep yellowish brown color. The fever is always remittent, generally with daily paroxysms, which are often more severe on alternate days. The grade of inflammation is generally elevated, than in ordinary pneumonias and occasionally the fever assumes a typhoid character; the pulse becomes feeble, the tongue brown and dry, & the mind somewhat wandering.

Under proper treatment Bilious Pneumonia terminates favorably. Yet it is more exceedingly dangerous when associated with the more malignant forms of miasmatic fever.

The fifth variety of Pneumonia, known being associated with a low, and depraved condition of the system, has been named typhoid Pneumonia. And this condition ~~has been~~ is produced by certain depressing influences calculated to impair the condition of the blood.

This disease is not seldom an attendant and associate (if I may be allowed to express myself) upon Typhoid fever, a complication which renders the malady, awfully to be dreaded, and seldom delirious, failing to distroy its victim: and if a result is by no means surprising, when we contemplate that the powers of life have not only to contend against the malignancy

typhoid fever which corrupts of itself the life of all the blood, but the vehicle of varieties, which is designed, for the noble and all important office of affecting that change in the blood which may render it fit to nourish and sustain human life, is impaired, and in some instances almost completely spoiled.

Now from the little reflection I have given this subject I have drawn this inference, that typhoid fever is a most striking and affective cause, in predisposing the lungs to take on inflammation, requiring only the slightest degree of deviations in the weather to produce the inflammation in the lungs. We all are aware of the obvious nervous depression in typhoid fever, which depression has no little or inconsiderate influence in modifying and perverting the natural

rogress of the blood: instead of the uniformity and equanimity which is so beautifully seen and portrayed in the progress of a healthy circulation sending as it does a sufficient supply of blood to all parts of the economy, we have in this peculiar and essential fever a languid, feeble, and passive circulation. Instead of the blood traversing all portions of the body, it seems to desert in a great measure the surface, and to flow tardily and inactively in the large blood vessels and important viscera = especially the lungs = through which the all the blood has necessarily to pass: in this condition of things the lungs are overloaded and overpowered, and therefore unduly excited. The lungs unable to decarbonize all the blood, it lingers and tarries in the pulmonary capillary vessels and becomes congested.

thereby doubly from the pulmonary circulation, to take on inflamation; this engorgement is, I mistake not, being the first step, in all inflamations; & in many cases the pneumonia I believe, is only a consequence of the typhoid fever. If I am mistaken in the view I have taken of this subject, I will thank any one of my superiors to correct me; and at the same time beg pardon for my presumption: Next to no-bleed; in this variety the local symptoms do not of material differ from those of the ordinary form. There is perhaps this peculiarity, (though even this is not always uniform) = severe muscalgic pains are superadded, which are not always confined to the exact seat of the disease, but may even be felt on the opposite side, down the back or sides, and in some few cases extending to the extremities.

In many instances however painful sensations are entirely wanting; and the local symptoms are masked to a great extent by the obtuseness of sensibility, consequent upon the state of the brain. The sputa are also different containing even in the same stage blood, and sometimes being nearly pure blood. In all stages of this disease it is lightly tenacious and viscid and usually more copious than in ordinary pneumonia. occasionally it is brown and even blackish, and sometimes fetid.

The general symptoms are those of depression. The pulse is weak, and though sometimes full, is easily compressible, and as the disease advances the frequency, smallness, and weakness of the pulse increases. The skin is hot and dry, or cold and clammy, and not unfrequently covered with petechiae.

The tongue is covered with a brownish fur, and in the advanced stage is dry; while the teeth, gums, and even lips are encrusted with a dark color. The evacuations are usually dark and offensive. There is throughout a derangement of the cerebral functions, often indicated by the countenance, and degenerating towards the close into stupor or delirium. The physical signs are dulness on percussion and the loss of the respiratory murmur with little or no of the expiratory sound, and the place of which is supplied by the mucous sounds, or those arising from diminished caliber of the tubes. The consolidation is found mostly in the posterior part of the chest. A tympanitic sound of the chest has been observed to succeed dulness, and this accompanied with an absence of respiratory murmur, showing the existence

of air in the cavity of the pleura. This affection occurs most frequently in the course of malignant epidemics. But as I have before stated it may be produced by any cause which greatly depresses the general economy.

The last, and perhaps the most unimportant variety of pneumonia, is that rare and almost doubtful form, which has been nominated Chronic Pneumonia. When this happens to be the case it almost always is the result of acute pneumonia. When the disease is at all extensive, more or less dyspnoea is present, and this is usually increased on exertion. The cough is usually moderate, either with or without expectoration, and the matter thrown up is mucus or pus, but is not rusty or bisciid. The pulse is generally increased towards evening. The appetite is impaired but not lost.

The Patient is usually able to get about the room. Occasionally hectic symptoms set in and pus is expectorated in considerable quantities. When tubercles are not generated there may always be hope for recovery. The physical signs are dullness, or entire flatness on percussion; the absence of the respiratory murmur; and when the consolidation is extensive, the want of all respiratory sounds and vocal resonance in the distant parts of the lungs, but may the orders bronchial breathing and bronchophony may be heard and the hand placed upon the chest experiences a decidedly stronger vibration from the voice than upon the healthy side. In favourable cases the natural respiration is generally first perceived at the upper part of the chest and gradually extends downwards with the resolution of the solidified lung

After carefully examining & observing the various symptoms and signs presented in the several varieties of pneumonia; the next step in our progress is to point out the characters by which the disease may be distinguished from those, which it is most liable to be confounded. First Bronchitis. The sensations in this affection are more of soreness than of acute pain, and are usually seated under the anterior and upper part of the thorax. The expectoration though sometimes ~~thick~~ streaked never has the extremely viscid and sticky character of the sputa of pneumonia, and where it once begins, is much more copious. No true crepitant rale is heard, but instead of this, the dry and mucous rales. There is no bronchial respiration or resonance, and being seldom a permanent sound, the respiratory murmur, in any part

of the chest; and finally there is no considerable dulness on percussion.

Secondly Pleurisy; here we have a sharp pain and a dry cough preceed the dulness; and we have not the expectoration nor the rust colored sputa which are antecedent to the dulness of pneumonia.
A lung rendered solid by inflammation does not distend the pleural cavity; whereas copious pleuritic effusion most commonly does, thereby obliterating the intercostal spaces, displacing the heart and extending the dullness beyond the middle of the sternum. Some or all of these effects are produced by an effusion of serum into the cavity of the pleura.
The solid lung transmits the voice from the pervious bronchi to the surface of the thorax, and if any motion of the affected side remains, it transmits also the sound made by the passage of the

air through these pervious bronchi. Now both of these phenomena are suggestive in uncomplicated pleurisy. Nature is also different in the two diseases.

Before advancing to the causes of Pneumonia, it may be as well, after diagnosing the disease to say something about the prognosis. In cases of pneumonia of the common or simple kind, occupying only a portion of a single lung, occurring in persons of good constitution, and without complication of any kind, there is reason to hope, for a favourable issue. On the other hand, in debilitated persons, and in those above fifty years of age, the malady is much more fatal. In very advanced age it is extremely dangerous. The danger is greatly increased when the whole of one lung is inflamed. Secondary pneumonia is far more dangerous than primary

and the lobular than the lobar kind. When associated with bilious or typhoid fever its fatality is increased.

Now what are some of the most prominent causes of this formidable disease.- Probably the most ~~frequent~~ frequent and powerful causes are vicissitudes of temperature. Sudden exposure to cold, when the body is warm and perspiring, is very apt to induce it. Risk = violence. Acid or poisonous inhalations. The excessive use of the voice. Violent emotions. Excesses in drinking. The suppression of habitual discharges. A long continued position upon the back, is said to give rise to the disease in debilitated persons. Such being the cause to a great extent (as I believe) of pneumonia in a great many cases of typhoid fever. It occasionally follows accidental injuries, or surgical operations of a severe character producing a great nervous shock.

various diseases are apt to be accompanied with pneumonia, and are thought to favour its production. The one, in which it most frequently occurs, is probably, bronchitis; But it is also frequent in measles, and hooping cough. It is an occasional attendant upon small pox, scarlatina and erysipelas. Phthisis can scarcely run its course without more or less of it. Affections of the heart not unfrequently occasion it. Chronic diarrhoea appears to occasion it in young children.

Of the predisposing causes, cold may be ranked among the most efficient. Hence, the disease prevails most in cold climates. Perhaps the period of life at which it is most common is from 20 to 30 or 35. The disease is more frequent in men than women; but the reason of this probably is, that the former are more exposed to the vicissitudes of the weather and to other exciting causes.

the last, and at the same time most im=
portant step in this disease, as well
as in all others, is, the proper and
judicious treatment, inasmuch without
treatment, pathological investigation is
futile, and unavailing. As measures
which are salutary and beneficial
under certain circumstances, are inju=
rious and even sometimes fatal un=
der others; It seems necessary therefore,
in order to apply suitable treatment,
and to meet all indications, to speak
of the remedies applicable and most
suitable to each one of the varieties
above mentioned.

First Lobar Pneumo=
nia. In the first stage of this variety
we discovered congestion; and should
we be called at this juncture, com=
mon sense would suggest to us, the
best mode of relieving this engorge=
ment; and let me ask what is that
yields such marked and powerful
influence, in subduing this, as well as

almost all other inflammations = viz the lancet. Bloodletting does good in several ways. In the first place it tends to restrain or extinguish inflamation as inflamation. Secondly it has the effect of relieving the particular function of the lungs. = The more blood that is sent to them, the more dyspnoea must there be, the more venous blood passing into the arteries; as well as the greater risk of the effusion of lymph and the obliteration of the cellular texture of the organ. When we bleed therefore we relieve the lung in a great measure ~~from~~ of the excess of exercise, and to prevent the aggravation of the inflamation from that cause.

The abstraction of blood will be effectual generally in proportion, as it is early, and it may be proper to remark that ~~that~~ the patient should be bled in an upright position from a large orifice

and the blood should be continued until a very sensible impression is made upon the system; and until the pulse becomes softer, or if it were contracted, until it becomes fuller, or until syncope appears near at hand. The quantity of blood to be taken depends upon the state of the pulse and the constitution of the patient. From 20 to 35 ounces may be taken from an individual of previous good health in the beginning of the inflammation this amount generally sufficing for the first general bleeding. Frequently we will find that such a bleeding at the outset of the disease will jugulate it, but should the symptoms be not evidently abated it will in all cases be necessary to repeat the bleeding after an interval of eight or ten hours, and the bleeding may be

again depressed, and continued to be repeated until the pulse is reduced and the inflammatory symptoms decidedly checked. The subsequent bleedings should be handled over & against the primaries. Cases may occur in which the pulse might deceive or mislead us as regards the necessity or propriety of using the lancet. This state, or things, is brought about by the lungs, being overwhelmed with sudden and extensive congestion, thereby so impeding the function of respiration as to occasion a partial asphyxia, in which the surface becomes pallid, or purplish, and the pulse very small, frequent and, suggesting the idea of great prostration of the vital functions. In these cases however, the fault is not in debility, but in excessive action in a vital organ; and the remedy is not stimulation but abstraction of blood

It usually happens that the pulse rises under the lancet, and this affords an indication that the remedy has been aptly employed. Tachnee (with this upheal sagacity) suggest as a test of the propriety of bleeding under such circumstances, the application of the stethoscope to the heart. Should the the cardiac pulsation be found proportionately much stronger than the arterial, he considers it an indication that bleeding is proper.

As an auxiliary to the lancet I should in most cases make use of local depletion either by cupping or leeching. by this means we directly empty the engorged and oppressed capillary vessels. The next remedy in importance to bleeding after thoroughly evacuating the bowels by an active cathartic as calomel and jalap is, the free and regular administration of tartar emetic. In many instances owing to the irritability of the stomach it will be difficult to continue it.

now this may in most instances be
corrected by giving the tartar emetic in
combination, and perhaps the best
mode of administering it will be to
make a mucilage = Tartras antimonii gr IV
time of Ulmi = ℥ij
aqua distil ℥iv
G. Acacia gi Ss

of this compound a tablespoonful
should be given every hour for
7 or 8 hours, at the expiration of
which time tolerance will usually
be established, and then we can
if it be necessary increase the tar-
tar emetic to 1 or 2 grs and continuing it
until the dyspnoea is put to an end.
The antimonial does good in several
ways = It depletes by its frequent emetic
and cathartic effect, acts as a dein-
-ter to the alimentary canal from
the lungs, and immediately reduces
arterial excitement by its powerful
sedative agency. The administra-
tion of the two above mentioned

remedies will if timely used seldom fail to arrest the inflammation in the first stage. But should it travel on to the second stage we have a medicine which greatly supplanted these two, and consequently is of high and paramount importance. It is in the second stage that this article exerts such powerful influence — when the inflammation has gone on unchecked and effusion is the result; now it is that we want something to act upon the absorbents which — the diseased lymph and lymph may be taken up, which would, if left to accumulate, distroy the texture of the lungs; more we find this substance (as it it may be justly called) to consist in some preparation of mercury, and perhaps the best and most efficient preparation is calomel; this is best administered with opium and ipecac and the combination I would use

would be as follows — Rx Calt. grj ii
Opium
Ipecac ā ā grp
This should be given every two or three hours. Sometimes each three combined the calomel produces purging and thereby worries the bowels. In such cases the blue pill should be substituted in proportional doses with the same additions. The administration of this mixture should be continued until ptyalism is slightly produced. After which time it should either be discontinued or lessened.
It will generally be necessary to commence the Mercurial treatment on the third day; but the precise time may be earlier or later in any particular case, and consequently must be left to the judgement of the practitioner. At the same time that this mercurial plan is in operation a blister may with great

pericardium, and adhesions be afflicted to the chest, and it should be as a general rule six inches height; before this period it would be injurious, since without correcting the inflammation, it would aggravate the disease. Should the case linger the blister may be sometimes repeated with advantage, and when necessary should be done after eight or ten days.

As blisters are often afflicted too early in this disease it seems proper I should state briefly the time and circumstances demanding their application — when the fever is no longer higher and the skin no longer burning; but the expectoration is still difficult, the dyspnoea considerable, and a sensation of tightness or oppression is experienced in the chest — in such cases a large blister is productive of much good.

If the pulse continues firm and steady we must continue

the mercurial treatment. But in the declining stages of the pneumonia indicated by sunken features, a pallid face, coldness of the extremities, a tendency to delirium and above all a feeble or irregular pulse proclaiming that the vital powers are giving way, that we are called upon to administer cordials and stimulants - such as the carbonate of ammonia in a decoction of senega, quina, and at the same time to feed the patient on milk, or beef tea. and combine more over with the above treatment some expectorant medicines such as the syrup of squills and senega, with a very small quantity of tartar emetic so that the stomach will bear it without being nauseated. Sulphate of quinine and oil of turpentine are said to be highly beneficial when these bad symptoms set in. At great many other medicines have been employed

in this disease. But I think those I have mentioned are perhaps the least and most efficient.
It is important always to avoid not to disturb any of those actions which may be considered critical.
Should the disease have arisen from so called cutaneous or translated irritations of any kind, efforts should be made to recall them to the surface — by warm baths, hot pediluvia and blisters or rubefacients.
The patient should lie with his shoulders elevated. The air of the apartment should be of comfortable temperature and well ventilated. In the early stage, the diet should be of mucilaginous or saccharine drinks — such as gum water, barley water, thin gruel to which may be added the decoction of dried fruits; at a more advanced period, when the fever has been somewhat subdued, tea and toasted bread, with a little rice or Indian meal may be allowed.

Lobular Pneumonia. This form of pneumonia requires the same general plan of treatment as that which is used in Lobar Pneumonia. Depletion measures are not so well borne in this disease in consequence of its frequently arising in debilitated subjects, and in the course of other diseases.

The age of the patient should influence our treatment to a certain degree. In very young children leeches may be very advantageously substituted for the lancet. Emetics after bloodletting has been highly beneficial; and in robust children over three years of age tartarized antimony given in small doses may be employed for this purpose. But in younger children it should be avoided. Tartar emetic in any form would be dangerous, especially when there is any tendency to disease of the mucous membrane. Calomel is an invaluable remedy, and may be advantageously combined with small proportions of Ipecacuanha.

The treatment of the chronic stage requires our undivided attention, and should be carefully attended to. Debility is here a prominent character, and often demands the use of stimulants. Carbonate of ammonia, wine whey, and assafetida combined with a nutritious diet are the chief remedies; and should hectic perspirations set in, sulphate of quinia may be superadded. It is also very important that a mistake at this stage of the disease should not be made, as the substitution of depletory for sustaining measures would prove almost certainly fatal.

Bilious Pneumonia. As this is a complicated disease it requires a combination of treatment, I mean to say by this, that when we find, as we do in this disorder two different organs simultaneously deranged and this derangement produced by dissimilar causes we have to

direct and employ our medicines to reach and combat each cause. For if we contented ourselves with simply applying those remedies which are generally used in the treatment of Pneumonia we would undoubtedly fail in curing what has been denominated "Bilious Pneumonia", which as its name implies is inflammation of the lung with hepatic derangement. Now if this abnormal condition of the liver be simply hepatitis, then we make use of the same remedies that I have mentioned in the treatment of Pneumonia, excepting that the mercurial flow should be employed from the beginning and continued as a general thing until slight ptyalism is produced. But on the other hand if the pneumonia be associated as it usually is in the country, that is in malarious districts, with miasmatic fever, or a miasmatic condition of the

instant it will begin to become the subsidence of it. Bilious pneumonia does not bear the loss of blood as well as the uncomplicated variety. However it will be generally necessary to take, in the beginning, from 12 to 20 ounces of blood, and in some cases the elevation may be repeated with marked advantage.

It is best in cases in which the propriety of the lancet is doubtful, to commence with an emetic or an emetico-cathartic. For this purpose a dose of tartar emetic may be prescribed followed by a dose of calomel; or a combination of ipecacuanha, or precipitated sulphuret of antimony, with calomel may be given at first, and the mercurial afterwards, and this latter carried off by sulphate of magnesia or some other cooling cathartic. In this variety if the bowels be not irritable, purgatives into which calomel enters may be employed

throughout the disease, or at least until evidences of debility are presented. In other respects the treatment may be conducted, with a single exception as in ordinary pneumonia. That exception consists in the employment of sulphate of quinine. Whenever, after the free evacuation of the bowels, and the abstraction of whatever amount of blood the circumstances of the case might require, there be a decided remission, recourse should be had to this medicine—quinine. From 12 to 15 grs of the sulphate should be given between the paroxysms; and as it should be our object to cut short the paroxysms as soon as possible—since they tend greatly to aggravate the inflammation. I would commence with 15 grs of quinine and after 5 or 6 hours, double the dose, reserving the last dose until about an hour before the expected chill and in order to insure the antipe=

riodic effects of the last dose of quinine it might not in some cases be improper to combine a certain amount of morphine. We commonly see pneumonia subsides along with the fever, and requires little further treatment. However should the inflammation remain after the paroxysms have been subdued, it may be conducted as an original and uncomplicated pneumonia.

Typhoid Pneumonia. As we might expect, bleeding is not so well borne in this variety, as in the other forms of pneumonia, which I have spoken of. In some cases a moderate loss of blood may not be unsafe but even beneficial, and the best and most efficient mode of abstracting it is, either by leeches or cups. If the disease be seen in its earliest stage it would be proper to commence the treatment with an emetic of ipecacuanha or sanguinaria and to follow this with

a purgative dose of calomel, or calomel and rhubarb combined afterwards the patient should be put upon the following combination.

℞ Opium =
Ipecac ā ā ½ gr
Calomel = grs ii

and this should be given every 3 or 4 hours until signs of debility became very evident. Then we should resort to stimulants, of these the milder should be first employed but failing we must then have recourse to stronger. Infusions of serpentaria with carbonate of ammonia and wine whey should be first employed, following these if it should become necessary with the compound infusion of peruvian bark, or quinine, and Hasty brandy in the form of milk punch or toast & water the yolk of eggs and sugar. Ardent spirits must be resorted to in the cases of those accustomed to it. Oil of turpentine & ammonia

I believe both from its stimulating and alterative effects would prove highly beneficial in the last stages of this disease. Mercury in small doses has been highly recommended in the dose of xx to xxxx gr. Dry cupping and blistering are important adjuncts. If the bowels are costive they should be kept open. The diet should be nutritious and sometimes even stimulating. In the earlier stages tapioca and arrow root prepared with nut meg, sugar and a little wine; in the advanced stages, egg and wine, rich broths and jellies and even essence of beef should be employed.

Chronic Pneumonia

In this variety the consolidation of the lung is left to continue tacitly offering great resistance to suppuration and the formation of abscess. In such cases perhaps the best and most efficacious method of treatment is to keep up a gentle mercurial ~~treatment~~ inspection

and sometimes it may be necessary to combine iodide of potassium, these being two of the most powerful and efficient expectorants we possess. Squill, Senega & tartar-emetic will be found valuable adjuvants. Blisters should be applied in rapid succession to the chest. When suppuration has taken place and hectic symptoms set in then we must call in to our assistance other medicines - such as the infusion of wild cherry bark with one of the mineral acids, morphia or one of the other narcotics, with expectorants to allay cough, and promote expectoration. and sometimes the inhalation of tar vapor has been found highly beneficial. The diet must be regulated according to circumstances consisting exclusively of milk & vegetable aliment if there be any increase of inflammatory symptoms, rendering it more nutritious in cases of debility.

An Inaugural Dissertation on Dysentery.

Submitted to the examination of the Provost, Regents, and Faculty of Physic of the University of Maryland, for the degree of Doctor of Medicine.

By John Thomas Day, of Virginia.

1851

To the Faculty of Physic,
Gentlemen,

I do with great pleasure conform with your time-honored law, by presenting to your inspection an essay upon the disease Dysentery, In doing so I am aware of my incapacity to treat of this disease, in a manner its importance requires, and therefore hope that you will forgive any errors and not condemn it with rigor. It is my intention to use as much originality from practical observation as practicable, though when this fails me, will consult the valuable work of Dr Wood, and the notes taken from my distinguished and learned friend Dr William Power, Professor of Theory and Practice, in the Maryland University, Allow me most

respectfully to give expression of the very high respect, and esteem, entertained for the Professors of the Old Maryland University, from whom I have received invaluable instructions in the pursuance of Medical Science, And allow me also to offer many acknowledgements and heartfelt thanks to each instructor for his unexceptional deportment & kindness to me, since I have been the student of her time-honored walls, for whose prosperity and advancement, I shall ever love to cherish with the fondest feeling and will endeavour to uphold while the years of eternity shall glide swiftly away,

There is perhaps no Disease in the whole range of Nosology requiring more skillful treatment, than the one now under consideration, and from experience and observation I know if allowed to seize the Human Frame and take a deep root, will often baffle the scientific skill of many who practice the noble and healing art, but like many other painful maladies to which the system is incident, if not permitted through ignorance to progress too far will ordinarily submit to the treatment of the wise and judicious practitioner. Dysentery, sometimes called Colitis, Colo-rectitis and Bloody Flux from the seat of its habitation and Colour of the stool, consists essentially in inflammation of the mucous

membrane of the large intestines generally, the entire course of the Rectum and lower portion of the Colon and is characterized by small frequent mucus or bloody stools, with griping pains in the abdomen, straining and tenesmus, which are peculiarly distressing to the patient. This is a very common disease in the United States. It attacks persons of any age, sex or temperament, and especially those who are worn down by fatigue, long watching, intemperance, hunger, and other causes which have a tendency to weaken the nutritive powers, and render the system susceptible to morbid impressions from external and internal exciting causes. Persons who reside in Marsh Miasmatic districts;

are peculiarly predisposed to this form of disease, and it seems that such poison connected with cold & moisture strongly act in producing so painful and dangerous a malady. It comes at all seasons, but particularly in Autumn, after hot and moist weather. It is both endemic and epidemic. When of the former character, it is owing to some peculiarity in the situation, or locality in which the patient may be residing. Such cases are frequently met with in the Country, particularly in those districts where Marsh Miasmata is so abundantly eliminated. Perhaps a member of a family will be seized with this disease and with proper care and attention by the Physician, the patient may be restored

to convalescence or otherwise consigned to the Cold Grave, "Happy those who watched with care and deep solicitude, perhaps their dearest tie on earth, their hearts beat quickly with fear, lest their thoughts that they soon will have to endure the sufferings of the same disease. Happily for human enjoyment such is not the result, the disease does not continue but stops short, and ceases to spread furiously in its onward and threatening course. The opinion entertained by many of its contagious character, would be additional incentives to increase the fears of those who had been exposed to its influence. The epidemic form of Dysentery, through preference visits large and populous cities, and attacks our standing armies when encamped together in large numbers. This form of-

Dysentery is too well known to all medical men, to be of a more serious and fatal tendency and therefore whenever it assumes an epidemical character, and seizes upon a densely crowded population, it should arouse the sympathy of the Practitioner, and demand of him all means in his power to arrest hastily the bold invader of peace, pleasure and happiness, and at any rate to palliate and soothe the onward course to death. This disease unlike many others seems to be partially inclined to attack strangers who are visiting localities where many of the causes are in operation, while the inhabitants of the same situations remain perfectly untouched, Why this is the case we can scarcely give a correct answer, unless,

quantity before the system can imbibe the malarious poison so as to produce the periodical disease ague. Such would be applicable relative to the poison producing Typhus — — The question has been agitated whether this is a contagious, by many ignorant persons it is considered to be so, but the weight of the profession is against such and have agreed that it is not so in its ordinary form, yet when many are confined in one chamber without due attention to cleanliness, ventilation, and removal of the stools, the disease appears to be communicated to others, who may be affected but the secret is probably owing to the influence of putrid effluvias, which are

at present acknowledge, to be capable of producing dysentery than of any non contagious effluvium "Causes." The most general predisposition to this disease is the continuance of long and indistinct increasing the sensibility of the mucous membrane of the alimentary canal, deadening in a great degree the hepatic functions, and relaxing the surface of the body which renders the system peculiarly susceptible to the influence of cold, "being" exposed to the cold damp night air, after having been greatly heated during the intense heat of a summer day, is a more frequent cause, the perspiration from the surface is arrested, the skin becomes cold and much below its ordinary temperature

and the epithelial is thrown in upon the internal organs producing congestion, and inflammation.

The Hepatic secretions at the same time become arrested, producing also congestion of the whole portal circle, and hence one of the most common exciting causes is the influence of cold, combined with moisture. This is the reason why armies suffer so frequently from dysentery, marching during the intense heat of the day, and perhaps at night, are compelled to sleep upon the cold, and damp earth, without anything to shelter their bodies from the pelting storms, and chilling winds. In such the epithelium of the surfaces are soon rendered torpid, the blood soon recoils from

the spleen, & the internal organs of
congestion in the pelvis. besides the
influence of cold and moisture,
in the production of this disease,
we have other sporadic causes,
such as substances, swallowed
directly irritating the mucous
membranes of the alimentary canal,
such as unwholesome and indi-
gestible articles of food of all kinds,
unripe and acid fruits, ripe fruits of
any sort, in large quantity, vegetables
of difficult solution, received into the
stomach, also acid and imperfect
fermented alcoholic drinks, such
as old and sweet ciders, wines, small
liquors, water which has been standing
for some time, pump water of large
cities, purging with drastic cathartics,
worms, and other fecalent accumu-
lations in the intestines, long —

constipation act as so many exciting causes, and at any rate aggravate the disease. Worms & miasmata have frequently some agency in producing the disease. In localities where such poisons are eliminated, it is not an uncommon thing to find intermittent fevers and dysentery succeed each other in alternation.

Dysentery may come on with or without premonitory symptoms, but as a ordinary rule it follows the former law, and the patient begins to feel general uneasiness, lassitude, impaired appetite, dull or bruised pain in the abdomen, costiveness or diarrhoea, with some degree of tenderness and other evidences of slight intestinal irritation. In others the bowel symptoms appear before those of a general character, and in very

mild cases without any complication. The disease may run its whole course without any febrile action being developed. In some severe cases both local & febrile symptoms commence simultaneously, the patient being seized with a chill, or a sense of chilliness, at the same moment he feels pain and tenderness — while in other cases, the fever often precedes for a considerable period, any evidence of disorder of the bowels, dysentery like many other diseases, presents itself with a regular gradation in severity, from the most simple affection, occupying but a small portion of the colon and rectum, unaccompanied by fever, and passing off in a few days, up to the most violent and dangerous forms of disease to which the

Human frame is subjected. Such a diversity in the commencement of this disease, is dependent partly upon the activity of the predisposing & exciting ~~causes~~ causes, and the condition and susceptibility of the patient. It is important for us to recollect that it may sometimes depend upon the degree in which the disease, is simple or complicated, when there is only ~~mucous~~ inflammation of the mucous membrane of large intestines, without any other complicated organic affections, or some morbid state of the system, at large, the disease will be of a mild and simple character, and, vice-versa. Now having given a general outline of Dysentery, and its phenomena without making any references to

the many other varities are present, defining it with the subject has been considered, "after which" I will briefly mention each, with its phenomena and treatment.-

"Simple Sporadic Dysentery."

The patient complains for several days previous to any irregularity of the stools, and abdominal pains, of feeling bad has general uneasiness lassitude. fatigue, and impaired appetite, dull pain in the abdomen, sometimes slight constipation, or diarrhoea. These phenomena called the prodrome of the disease give away, and these symptoms truly characteristic of the disease, ushers in upon the patient, which causes him to relinquish all of his laborious occupations, Now he has griping pains in the bowels,

generally called Tenesmus, very irregular in their position and time of occurrence. These pains are attended at first, with soft, mucous, and bloody discharges from the bowels, which in some degree relieve the sufferings of the patient. These pains continue to occur more frequently and at stated intervals, in intensity and violence, which proves excessively fatiguing and agonizing. Succeeding these symptoms, and very frequently accompanying them, a sense of weight, burning, or other uneasiness, is felt in the rectum, with a painful and frequent desire to go to stool. Called Tenesmus, ~~[illegible]~~ without the power to evacuate anything more than a small portion of bloody mucus. This tenesmus becomes more frequent.

and urgent. and at last constitutes the most distressing feature of the disease now under consideration. The desire to evacuate the bowels continue to recur at shorter intervals, and at last so incessantly as to compel the patient to keep his clothing unfastened, fearing he will not have sufficient time to remove them, when called to defecate. - This straining sometimes produces prolapsus Ani, especially in very young children. - after the disease has been on for a considerable time, the discharges become more thin & bloody, and sometimes acrid. This latter discharge occasions a cutting and burning pain in the rectum, frequently the mouth of the fundament, becomes tender to the touch, and excoriated. which increases the

pain when defecating. This causes the patient to resist the disposition as long as possible. The passages during the day are very variable in number and quality, ranging depending upon the intensity of the disease. In mild cases amounting to 10 or 20 per day, and in the most severe forms, reaching fifty or sixty or one evacuation every fifteen or twenty minutes. The author saw many cases last Summer in which the above statement was correct, and as a general thing the more violent the disease. The most frequent voice is the desire to go to stool. The discharges are more or less feces at the commencement but soon consists of transparent mucus. Blood mixed with mucus, and at last, nothing

but fine bird, occasional, of ulcerated
bile and portions of fake membrane.
In some cases there may be seen
masses lumps of hardened fæces
resembling those voided by sheep, these
lumps are called "Scybalum" such
discharges are of rare occurrence.
The old doctrine on this subject
was that "Dysentery" was the result
of an irritation caused by the pres-
ence of these "Scybala" in the Colon, and the indication for cure
was to attempt the removal by
purgatives. These old doctrines have
long since been abandoned, and
the notion is now shown to be
founded upon false pathology, and
the treatment which it indicates
decidedly improper. In the commence-
ment of the disease the discharges
are without mucus, but at a later

period they acquire a very disagreeable odour previous to dysentery. Other organs of digestion sympathize with the rectum. In the male the bladder and urethra sympathize causing a frequent desire to evacuate the bladder. The vagina in the female also participates in the disorder. The abdomen is tender to the touch and especially the seat of inflammation — the ascending and descending colon. The extent of inflammation — may be pretty accurately determined by feeling cautiously along the tract of the colon and pressing moderately upon the seat of the disease which most generally attacks the rectum and lower portion of the colon. Sometimes when the inflammation is extensive, and has lasted

long. The whole tract of the large intestines become involved, giving a sensation of tenderness throughout its whole course. The fever in this form of disease, ~~the fever~~ is slight and trifling, but sometimes the contrary, the pulse is slightly accelerated, moderately full and soft, the surface warm and dry to the touch, secretions from the kidneys scanty, tongue moist, and slightly covered with a whitish fur, the hepatic functions torpid, and the secretions greatly diminished. In the latter stage the abdomen becomes soft and flacid, and the patient complains of a painful feeling of fullness, and sinking in the abdomen. This stage is attended with a cold damp,

and left feet of skin, a small frequent and feeble pulse, some feeling of nausea and vomiting, by proper treatment are of these symptoms subdued, and the patient is restored to comparative ease and safety — " " —
"Convulsion, epileptiform and vomiting are very seldom present, in this simple form of dysentery"
The duration of this simple form is very variable in different persons of different localities, depending upon the constitution of the patient, the intensity of the exciting causes, and the epidemical character of the disease, it is also dependent upon the care, and prudence of the patient, and lastly upon the medical Practitioner
However in a vast majority of

cases, the disease takes a favorable turn between the fifth and tenth day at the furthest.

In some cases from the violence and extent of inflammation symptoms of depression take place, and the system fails to react under the depressing causes. The nervous system yields to the injurious shock, and is unable to react under the continued violence of the disease. The patient now becomes depressed, debilitated, and every symptom more aggravated. The pulse becomes more frequent, small and irregular in its action. Skin below its usual temperature, and clammy. The general expression anxious and indicative of suffering. The features sunken and pinched. The alae of the nose contracted and pressed a little.

appearance, the eyes sink in their sockets, with occasioning livid and purplish appearance under them. The ends of the fingers possess the same appearance, and occasionally I have seen the skin of the fingers look like those of washer women. At this period all of the above symptoms have reached their greatest acme, and death soon closes the solemn scene. Happy simple dysentery without any other complication. But seldom occurs of so violent and dangerous tendency. As a general rule simple dysentery, by proper attention and treatment, will soon give away to requisite remedies, used by a judicious Physician. It is inflab, and arrives, and among the poorer classes of society, where

many are compelled to reside together without observing the deadliness that we see Dysentery rage so furiously, and display so alarming ravages. This form is more apt to run into the chronic form which may last for a long time, perhaps weeks, months, or years occasionally but very rarely after the worst of these symptoms, the patient may recover. If so, it will be a long period before he entirely convalesces, and regains the usual powers of his organic functions " " " " " " " "

"Acute" "Febrile" "Dysentery" ==

The symptoms characteristic of the simple form is now present but of a high grade and more intense action. The Dysentery begins frequently before any of the

Some Symptoms have developed them-
-selves, and continue during the
course of the disease. But I believe
as a general rule, with "some excep-
-tions" the fever succeed their
manifestations: the fever seems
high, the pulse is hard full &
frequent. Skin dry, hot, and
rough to the feel, Face is flushed
and congested, the Conjunctiva
of the Eyes looks red, and suffused
with tears, and the Tongue is
exceedingly dry, hot, and covered
with a brown fur, occasionally
it is smooth, red, & glossy, and frequ-
-ently pasted, indicative of intense
intestinal irritation—, thirst is
unquenchable with a constant desire
for cold drinks, which causes
a desire to evacuate frequently.
Headache is intense, the urinary

organs sympathize with the inflam=
=matory action of the intestines. as in
the simple form, the patient
micturates frequently in small qu=
=antities. it is acid or burning &
deposits a red sediment, depe=
=ndent upon inflammatory
action, the stools are very acid &
bloody it sometimes resembles
the washings of raw beef. Tenes=
=mus, and griping, are more cons=
=tant, and are excruciatingly agO=
=nizing. The patient becomes more
restless and irritable. He passes
sleepless, dreary, and disturbed
nights, and looks anxious Hippo=
=cratic low spirited and despond=
ing. The pulse flags. The skin
becomes cold and clammy &
the strength now rapidly declines
"this form is of a more serious nature,

and may be relieved if not accu-
=ured to run on for an indefinite
time without medical aid —
"Diagnosis" There is not much
danger in confounding dysentery
with any other abdominal disease.
save one which is "Diarrhoea"
The differences between these
two diseases are obvious enough
both are accompanied by griping
pains, and frequent stools. But in
dysentery there is a retention of
the natural feces, nothing but mucu
=us or blood passed, or small
hard lumps, called Scybala are
passed from time to time —
In diarrhoea the discharges
are always feces, and occasion-
-ally proceed to dysenteric disch-
=arges " " " " " "
"Prognosis" When dysentery

arises sporadically in temperate climates and attacks individuals of good Constitution, and not complicated with any organic affection, it is favourable. When it prevails Epidemically it is unfavourable. When dysentery rages in Miasmatic districts of Tropical climates, and attacks many at a time, it they assumes a malignant and unfavourable tendency and commits terrible ravages" " " " When the disease is to terminate favourably, acc of the before mentioned symptoms change for the better, and gradually disappear. griping pains and Tenesmus subside, stools become less frequent more copious, and change to a fecal and bilious character and nothing but diarrhoea discharges

are now passed, and these have with=out much attention and treatment. If the discharges in the commence=ment are pure blood, the disease is more tractable unmanageable. By some authorities the opinion is that the discharges of blood in the commencement of the disease prove beneficial by lessening congestion of the portal vessels. Sudden cessation of tormina and tenesmus, occurrence of tympanitis, a feeble, small and irregular pulse, coldness of the surface and pinkish hue of the nails of the fingers, subsultus=tendinum, hiccough, involuntary stools, and stupor and delirium, are unfavorable, and portend a speedy and fatal termination. The longer the

disease continues without amend=ment greater is the danger to be apprehended, after a duration of two weeks there is reason for deep solicitude. The danger is proportionate to the extent of the inflammation of the colon, & — death at last results from a failure of the powers of life, under the irritation produced, and from general debility. from gangrene, or from excessive debility occasio=ned by the continued wearing & exhausting effect, of a combina=tion of inflammation and discharges. " " " " "

Anatomical Character,

If the intestines are examined after a person has died of dysentery a general rule, it will be found that the inflammation has occupied

the rectum, and lower portion of the Colon and sometimes extending throughout the continued tract of the large Intestines, the surface of which will be found differently affected at different periods, according to the duration and intensity of the disease. They are being not unfrequently found reddened, thickened, and ulcerated, in violent and protracted Cases. The inflammatory process involves the whole parietes of the intestines, ulceration penetrates all the coats, it is a rare occurrence for the peritoneal coat to be involved and broken down, but occasionally so unfortunate an accident happens and the contents are poured into the abdomen producing death inevitably. The little mucous

follicles scattered upon the surface are enlarged, and stand prominent by our. from local congestion preceding the appearance of some hospitals, for which they have been mistaken, ulcers are more frequent in this disease than in any other acute inflammation of the alimentary canal except in follicular enteritis of typhoid fever, and dysentery. these ulcers are either small and rounded or very large, and irregular from the small ones having grown into each other. they have abrupt edges and are often covered with a viscid exudation resembling slough. when this is removed the surface is left red shining and swollen. in protracted cases the mesenteric glands are enlarged

and softened but very seldom ulcerated. This inflammatory and ulcerative process does not always confine itself to the large intestines. but for it sometimes extends to and throughout the smaller intestines, and even the stomach is sometimes involved. In tropical climates the liver is occasionally diseased.

respecting the anatomical appearances presented in dysentery of course it is not to be expected that the author can give any thing original not having seen any post mortem of such cases. therefore as I have data concerning the anatomical changes presented after death in dysentery I have obtained by consulting Dr Wood and notes from Professor Wm Power of the University of Maryland

Treatment

Physicians have employed for the cure of dysentery many varieties of remedies. and it is certain that very different ~~varieties of~~ ~~varieties~~ plans of treatment have been found successful under different circumstances, in different localities, in different individuals. it must vary according to the state of the system, the violence and intensity of the inflammatory action, and the changes produced by associated organic complications. In simple sporadic dysentery, unaccompanied with any other complication, the indications are the same as those for inflammation in general, for the disease consists in congestion of the portal circulation, and the

use of those medicines calculated to unload the congested vessels, & to remove irritation, is essentially proper and beneficial. The modifications required by the condition of the system are to be mentioned when speaking of the disease complicated with Bilious, Adynamic, Intermittent, and Typhoid character. Authors differ so widely in the employment of remedies. That it will be better for me to state the value of each one, before I give the treatment for an individual case. "Bloodletting" should not be confined in our cases unhesitatingly in the commencement of an acute attack, in a person of a free plethoric habit, with a free

bounding pulse, and great febrile action, Bleeding is imperatively demanded, and should be carried almost to syncope. "Any state until some effect is manifested upon the Circulation, local abstraction of blood from the seat of inflammation is capable of doing great good" — In an adynamic person with great debility, of course it would be unadvisable, if ignorance should induce a physician to deplete, fatally in such a case death would be the result " " " " " " Emetics have been recommended by many intelligent Physicians, and are no doubt highly serviceable in the commencement of the disease, when the

Stomach is loaded with accumulations of any kind of indigestible articles of food, or an undue quantity of an acrid quality, which would be cognizable by Epigastric oppression, nausea, belching of acrid like gases, and by frequent ineffectual efforts to vomit, and also by enquiring of the patient respecting the matter, some recommend antimonial preparations, but from the mildness and certainty of Ipecac, it is most advisable, in the commencement of an attack of Dysentery, by giving an Emetic dose, will sometimes immediately arrest the disease, by its revulsive effect, Cathartics are most efficient remedies,

They are given to free the bowels from any irritating secretions or accumulations, and also to diminish portal congestion. This class of medicines fulfills both these indications, however in prescribing cathartics, we should make some selection in the articles employed, it should be our aim to use such as will act upon the hepatic function, and those which are mildly laxative, but at the same time sufficiently potent. The Liver is completely torpid, and how obvious in such conditions will the employment of some preparation of Mercury be required. From my own observation last summer, Calomel is one of our

most useful cathartics, it is mild in its action, and at the same time excites the action of the Liver, but occasionally it is uncertain and not quick in its operation, therefore it will be better to assist it by other cathartics, In ordinary cases, it will be best to give from 15 to 20 grs of Calomel, and allow it to remain about six hours, to excite the hepatic secretion, after which, give a dose of Castor oil, to which add a small portion of Laudanum, which will prevent its griping, Some prefer Saline Cathartics, from my own observation, I can say nothing of their superior value, but as my learned friend Dr Power,

speaks so highly of the advantages which would result from their employment, I shall be disposed to use them freely in my practice, though at present from never having seen them used, cannot at present acknowledge their advantages over Castor oil, which I have seen used so frequently with success.
In the commencement of an attack, with a dry and hot skin, the saline cathartics, would be essentially demanded, to relieve inflammatory action and internal congestion.
One or two evacuations should be produced every day, as long as there is any marks of febrile action and dysenteric discharges, but in advanced stages of the

disease, they should be used more sparingly. Melted Butter has been recommended, whether it would prove of any use I am unable to state, Some would suppose by combining an opiate with the cathartic, its desired effect would be lost, but to the contrary, for the opiate resolves the spasmodic constriction of the bowels and relieves pain, and increases the purgative action, If the patient is very bilious, it would be better to give Calomel in two or three grain doses, at intervals of three or four hours, allowing it to act upon the secretion, and in about four hours after the last dose is taken, give

a dose of Castor oil or Epsom Salts, Diaphoretics are serviceable by acting upon the cutaneous surface, causing an external direction to the fluids, thereby removing internal congestion by depleting the blood-vessels generally. Sometimes in this disease they are of no service, and should not be employed when the temperature of the room is much below that in which the patient is placed, when the surface is moist, care should be taken not to expose it to cold damp air. The Warm Bath, and Dover's Powder with Calomel are among the most useful articles of the Class, Opium, it was once supposed that Dysentery could

be always cured by this Narcotic, It is true that the discharges may be cut short, but when this is done the disease is far from being cured, the discharges would be locked up in the intestinal canal, while the morbid action still pursues its destructive course; however, when given judiciously in proper dose, and at proper intervals, with a view of relieving the sufferings of the patient, producing sleep, it is a valuable remedy, When there is fever, it should not be given untill the force of the circulation has been reduced by the lancet and cathartics, ~~[illegible]~~, Acetate of Lead,

is also deserving much praise, and if given judiciously, is capable of accomplishing salutary effects, it has been employed in all stages, however, it is better not to use it in the earlier stages, before the inflammatory action has been somewhat subdued, it is best adapted to chronic cases, and to those of acute character attended with considerable hemorrhages, It should be given in two or three grain doses, at intervals of three or four hours, combined with opium, Sulphate of Copper or Zinc, combined with opium are very applicable in advanced chronic cases, where ulceration of the intestinal canal has taken place,

These medicines give tone, to the muscular Coat, Spirits of Turpentine, has of late years attracted considerable attention, in the treatment of Dysentery, I have seen it used with Suc=cess in Chronic Cases, when there is much ulceration of the bowels, attended with a tympanitic feel of the abdomen, and in that condition of the System, which requires Stimulants, Nothing is more serviceable than the Oil of Turpentine in such Cases, A very good way to give it is in Combination, with Castor Oil, or Some demulcent drink, Acids, Peruvian Bark, Nux Vomica, or its active principle Strychnia, and many other remedies have

been recommended by different authors, but I have seen none of them employed and therefore cannot speak of their efficacy, but can only say I would not at first rely upon them, when we have so many more of greater power to fulfill our indications, Local Remedies, Cups or Leeches are very important auxilliaries to general bleeding, when there is much pain and soreness along the track of the Colon leeches are preferable for they do not occasion so much irritation as cupes, they do much good when applied to the Anus, if there is much tenesmus and griping pain, Fomentations, and Emollient

Cataplasms are serviceable, they are rendered more effectual by strewing Laudanum or Camphor upon the surface before applying them, Rubefacient and Anodyne Embrocations, such as Oil Turpentine, made hot, Solution Camphor, and Laudnum, is very good, but not so much so as the former, A Broad Flannel Roller, should be worn around the body to excite the surface, After all these means have failed some benefit may be derived from the application of a blister upon the abdomen, and after being removed, the surface should be sprinkled with Morphia, emollient Enemas, at times. Sometimes as adjuvant,

to the cathartics, and also to soothe the irritation of the bowels, and dilute the acrid secretions, warm water, solution of starch, & Laudanum, Infusion of flaxseed. Marsh Mallows, Rice water and mutton water, are proper — I have seen much good arise from these enemetas. — Injections of acetate of Lead and Zinc are very good in the latter stage, when there is much ulceration, above the Compression of the Colon, and restore the strength of Injection to be used according to the extent of the ulceration. Prescr.

℞ Pag° Three, or Four grains of each to an ounce of water which will Combine some Laudanum, in Due quantity.

In the treatment of a simple case of Dysentery. There are four morbid indications present which point out the general Indication for a course of Treatment. 1st. "There is inflammation of the mucous membrane of the intestinal Canal. 2nd. general vascular Excitement. 3d. Torpor of the Cutaneous ophalemts. and 4th. functional disorder of the Liver. "Now according to the pathological conditions present in Dysentery. the principal Indications are to remove, or to moderate. if present any febrile action of the heart, and arteries. "2nd. to restore the usual action of the skin & Liver. "3d. to subdue local Inflammation of the bowels.

when called to a patient, with Dysentery. The first thing to be done is to find out the cause, and remove it if practicable. Often produced by eating indigestible articles of food, and the patient is seen soon after it has been accounted. It will be better to give an Emetic such as warm water & mustard, or a free dose of Ipecac, which will never fail to produce Emesis: Now! to fulfill our first indication. Bloodletting should be performed, give a good dose of Calomel, and follow by oil, castor or some other brisk, but mild Cathartic. The 2nd to be fulfilled by giving small doses of Calomel frequently repeated, and by warm applications —

Rubifacients, warm bath, & flannel rollers around the body to open the pores and produce a tendency of the fluids to the surface. The 3rd and last indication is to be fulfilled by using warm fomentations, leeching, cupping, and Blistering.

Sixth: In the Treatment of this disease, nothing is so important for success in the cure of the patient as proper attention to diet. Cleanliness, change of clothing, and to the removal of all excrementitious matter as well as ventilation of the apartment to preserve the air pure, and sweet. articles of food should be light and farinaceous such as Tribe Rice. Tuile Tea, and Crackers toasted

in water. In more protracted and dangerous cases, give mucilaginous farinaceous and demulcent drinks. such as solution of Gum arabic. water. made cool by ice. Thin gruels. arrow root. decoctions of rice. tapioca. sago. and farina. chicken water. with rice. In convalescence from an attack of dysentery the patient should be careful not to indulge in eating indigestible and improper articles of food, as relapses are very apt to follow improper indulgences. The bilious variety of course will require a more energetic employment of Mercury. it should be given boldly in large doses. to produce a constitutional effect as soon as practicable. —

occurring in a miasmatic region of country have generally complicated with the disease. The intermittent, and Remittent, tendency. in such cases after all other remedies, have failed we should resort to Peruvian Bark or its active principle Sulphate of Quinine which will generally arrest the disease. Typhoid Dysentery This latter form, is the one which presents the more serious aspect. for while on the one Hand, it will be necessary to employ potent stimulants to support the exhausted, and debilitated system. we shall be compelled to use such remedies, as will be sufficient to arrest the onward progress of the disease. general & free Blood-letting active Cathartics, in this form, will be inadmissible. and should not be indulged in, to

comply with the ordinary indications for Cure. give small portions of Calomel to produce a constitutional influence. give as a cathartic. Castor oil with spirits of Turpentine & Laudanum. Jellies. Eggs and wine. brandy. wine whey. oil of Turpentine, given frequently in demulcent drinks opium and Sulphate of Quinine Carb-Ammonia. warm applications to the Sides & legs. friction with mustard. Cayenne pepper. Hot spts of Turpentine. and warm Clysters. to the inside of the Thighs and legs. steps ~~of the legs~~. also mustard Cataplasms. Acetate of Lead. opium. & Gum Wine will be found useful when there is great Hemorrhage from the bowels producing excessive debility."

Having spoken of the varieties of Dysentery, I have one. I think it my duty to say something of the Chronic form. before I conclude to exhibit a disease of the alimentary Canal. I shall briefly state what I think is essential necessary to be said of this form of dysentery.

Chronic Dysentery is seldom an original disease. it is exceedingly rare for it to occur in a person in health. and of good Constitution. It is almost always the consequence of an acute attack. When very slight, and affecting only the Rectum, and lower portion of the Colon, may sometimes arise from an extension of the inflammation from a former insult. This form of Dysentery is often associated with Chronic Enteritis. And it is sometimes difficult

~~[illegible]~~ it determines for the
Gen. Pathology of the Concomitant
in inflammation. However a Knowl-
edge of this bowel matter has little
difference in the Treatment of the
Two affections are essentially the Same.
especially those Cases in which the
Symptoms are Commingled. Chronic
Dysentery may Commence with
"Diarrhoea" and gradually assume
the "Character of the latter form.
The Symptoms are the Same with those
of the acute form, merely differing
in intensity. The alvine discharges are
more frequent, but less Copious, and
Contain less blood & fibrinous matter:
the greater number of stools. Consists
chiefly of mucus. Sometimes mixed
with a few like secretion, or streaks
blood. "occasionally" there is seen
feculent, or bilious matter mixed

with the proper Dysenteric discharges. There is and as much abdominal pain & Tenesmus as in the acute form. When the disease is confined to the Rectum & lower portion of the Colon - the discharges are often consistent, and instead of being uniform & mixed with mucus, is either irregularly pervaded by it in layers, or completely enveloped in a thick coating of it, derived from the surface of the bowels, with which the feces lay in contact. There is always more or less tormina and tenderness, on pressure. Hours the latter is not always present in this case. The pulse is commonly natural during the day. The skin is moderately cool and below its ordinary temperature. The tongue is covered with moist fur. The appetite is deranged, and some=

=times entirely lose. at other times it is to the contrary, resembling the symptoms developed in chronic Enteritis, but the symptoms of derangement upon the whole less severe. When the disease is confined to the lower portion of the bowels. the constitution often sympathizes but little. In such cases. the complaint sometimes continues often for months, or years. without making very serious inroads on the general health. But as a general thing in chronic Dysentery. If a favourable change is not effected by treatment the patient begins to emaciate slowly and gradually. The Countenance becomes pale, and sallow. Sometimes shrunken and pinched, and presents an aspect, of anxiety, and depression,

the appetite fails. the gums strength gives away, and at last after long & intense suffering the patient is compelled to resign quietly to death. from a gradual failure of strength. and exhaustion of the system. without the disease is early combated by the Medical Practitioner. and frequently all our efforts, are but in vain. and fatal. — " "

Anatomical Characters. In Chronic Dysentery besides the usual signs of Chronic inflammation in the mucous membrane of the Intestinal Canal. there will be found that ulceration is generally present, sometimes the ulcers, are found in a state of Cicatrization. and others completely cicatrized, rendering it probable that the patient may sometimes recover. after ulceration

has occurred spontaneous cure.
Ulceration sometimes involves the
the coats of the intestine. Sub. abscess
of the Liver are sometimes observed
as early the Common effect of Chronic
Dysentery. There is a patient in the
Baltimore Infirmary labouring
under the same disease with which
is complicated a Psoas abscess in
the left Iliac region. Dr Power
thinks is the result of the irritation or inflammation
extending from the coats of the large
intestines. especially the lower portion
of the colon. Treatment Nothing
is so important in curing chronic
Dysentery as the proper regulation
of diet, exercise, and attention to
clothing &c. General Bloodletting
is scarcely ever admissible. but
leeches may sometimes be applied
if there is much pain and tenderness

=ness. when the disease is connected with chronic inflammation of the small intestines. Cathartics, are but seldom employed, as the bowels are opened spontaneously. However mild cathartics should be given occasionally to prevent any accumulation in the bowels above the part affected. such as small portions of castor oil, Rhubarb, Senna & Manna or by Injections. opiates are most always indicated. they have useful by relieving pain moderating secretions and guiding the excessive action of the bowels. opium may be combined with any Remedies which may be required to meet other Indications. Opium, Combined with acetate of Lead, Sulphate of Copper, & Sulphate of Zinc, would be very good Combinations. When

the skin is dry & the hepatic secretions deficient Dover's powder, combined with Calomel will sometimes prove exceedingly valuable, Sulphate of Zinc, & Copper, have a decided alterative influence, over the alcerated mucous surface. The Nitrate, & oxide of Silver, with opium have been highly recommended. When the tongue, is dry & smooth Spirits of Turpentine given in doses of ten or fifteen drops twice every Ten or Three hours will be beneficial. Subnitrate of Bismuth, given three or four times per day proves valuable. Zinc, in dose of five grains with Dovers powder will be found very valuable, many other astringents have been recommended but they are much inferior to those I have before specified. When the disease is confined exclusively to the lower

portion of the bowels, great benefit may be derived from giving injections of Nitrate of Silver, Sulphate Zinc, and Copper, with Tinct Opium, of sufficient strength to suit the violence of the disease, and extent of the ulceration, of the coats of the intestine, The diet should be light, fluid & farinaceous, The most suitable, is Milk, it may be taken with stale bread, Water Crackers or boiled and thickened with flour & rice, All kinds of Animal food should be avoided, The Warm & Hot bath combined with warm Clothing & friction to the surface, act well, The patient should always wear a Flannel Roller around

My subject is not consumed, and my heart palpitates with anxiety at the approaching storm which will soon hover o'er me, but with hope and fond anticipations that I shall safely steer through the green billows of the tempestuous Ocean, and reach the land I have long laboured and struggled for; I will conclude this tedious subject and respectfully submit it to your examination,

Yrs Thos. Gay
Dranesville
Fairfax County
Virginia

Session 1851

An
Inaugural Dissertation
On
Acute Rheumatism
with its most
frequent Complication
Rheumatic Pericarditis
Submitted
to the
Examination
of the
Provost, Regents and Faculty
of the
University of Maryland
for the degree
of
Doctor in Medicine
By
Basil B. Crawford
of Howard District
Maryland

In compliance with one of the requisitions imposed upon every candidate for graduation, permit me to offer you a dissertation upon that most commonly and frequently fatal malady, Acute articular Rheumatism with its most frequent complication. I just pause to describe a case of inflammatory Rheumatism coming in the simple and uncomplicated form and then to relate more particularly upon the very frequent and formidable complication with Cardiac mischief.

By Rheumatism we understand the existence of an inflammatory condition of the Connective tissue structures and synovial membranes which lubricate and form a part of the composition of the joints.

Rheumatism may be divided into

the acute the subacute and the chronic but the two first [illegible] [illegible] of acute rheumatism they the acute form. It is also divided into the fibrous and synovial which is confined to the fibrous membranes &c. And synovitis or that form in which the synovial membranes are more or less involved. Now the symptoms which are present in the one variety are constantly present in the other, but in a less intense degree. The fibrous variety is considered as most unfavorable, frequently tending to assume a chronic form as we shall hereafter see.

Now what are the symptoms of this disease in an attack of inflammatory rheumatism? The patient feels his own unwell for a few hours previous to the attack he has a wandering pain

in this health has [illegible]. [illegible]
sensations alternating with flushes of
heat. His bowels generally [illegible]
[illegible] by [illegible] and [illegible]. The tongue
is generally found coated, with a thick
white fur upon its surface. The pulse
at the wrist is extremely [illegible]. These symp-
toms increase, the face becomes more
flushed, the eyes are red and suffused
the blood-vessels [illegible]. There are
now very remarkable symptoms which
are [illegible] [illegible] at all times
on the state of the pulse and respira-
tion. The pulse is [illegible], full, hard
and bounding. Nothing [illegible] to attract
considerable importance to this state.
The pulse is one of the [illegible]
diagnostics [illegible]. The respira-
tion is very [illegible]. The patient is
[illegible] in it. [illegible] is

constantly deteriorated, with this sore-
-smelling secretion. But what is very be-
-autiful in connexing this treatment
treating, is that it does not alleviate the
patients suffering.

Now we separate the local symptoms
which are due to irritating the affected
part. Pain, heat, redness are limited to
inflammation. The pain is excessive
its character is that of dull aching
or burning sensation. The patient is ter-
-ribly distressed. It is impossible for him
to rest the affected part, and efforts
are intolerable torture.

The heat is present in all cases, and is
peculiar of the affected part, for no
part of the body is hotter than
it.

Redness is also present as a constant symptom
in many cases it is very [illegible] the
tissues is very [illegible].

Shivering or a sensation of cold is almost constantly present. Almost immediately after the disease has made its appearance there is a profuse sweating. This accompanies a sensation of heat like the impression of the finger, if the hand is not too dressing to present this manifestation. Nausea and vomiting are more or less present in this form of the disease, but in the general debility, though they may be present yet they are far less intense. The headache is less severe: the pulse is not so full, strong and bounding: the delirium less intense, and the mind is not so intoxicated. And there is a distinct stage of fluctuation in the pulse.

Causes. The causes of rheumatism are the sudden vicissitudes of temperature. It is peculiar to a damp and moist atmosphere.

Gout. Of rheumatism is probably the most painful disease of all complaints. Dangerous it is not, but it is especially to the laboring classes who are exposed to all kinds of sudden variations of temperature. Diagnosis. The diagnosis in this affection is simple. It is the only complaint which it may be mistaken for. And if we study well the character of the symptoms the patients in which it occurs there is little probability of its being mistaken. Rheumatism is produced by exposure to cold: yet it is a disease of totally different source. Gout affects the poor, gout the rich and those who indulge upon high seasoned and spiced food and who indulge in the use of alcoholic drinks. Those who are long in bad health are the victims of the cares and responsibilities of a business life.

Gout is not hereditary it is most common to be transmitted from parent to offspring. Rheumatism on the contrary is more hereditary but required. Gout has a more decided tendency to affect the smaller joints. In rheumatism the larger ones. The pain in gout is more severe than in rheumatism.

Prognosis. The prognosis is exceedingly variable. The younger the patient the more apt is it to prove fatal by depositing in the heart. The more chronic manifestations are more exempt from dangerous treatment. As to treatment of this disease most diverse considerations. There is no unanimity of opinion as regards the efficacy of the antiseptic plan of treatment. Accurate history of many in one case be remarkably successful the same agent under a similar case

may be relief by injections. From the
relaxed state of the bowels prior, the
state of the fluids would be inflam-
mory fever. We might expect that the
constipation & blood would be removed
with ease in many cases with it. When
after the full constipation of bowels we the
symptoms appear, and the bowels are then
[illegible] opened, we are
astonished at the relief which it affords
[illegible] the [illegible] nature [illegible] may
[illegible] be [illegible] thing it may be fæcu-
lent, in its appearance, though it
may employ depletion very freely, yet the
patient may not in the least be benefited
by it. Cannot an opium after dec-
depletion is a favourite remedy with
many and in many cases doubtless we will
find it important. The Calcis Calcinatum
The free use of diaphoretics have all been

[illegible] the same treatment as being free
[illegible] the [illegible]. It
is that has been by the name of Chorea
[illegible] Chorea. This consists
of agitation the patient rather decidedly
to see [illegible] from the arm it was shown
[illegible] time. Then administering five
or ten grains of Calomel combined with
[illegible] followed in the morning
by a black draught consisting of Sulphate
of magnesia. Senna and manna, con-
taining fifteen or twenty drops of the
wine of opodeldoc. And giving the
patient two or three saline draughts
containing the same quantity of Chlo-
rodyne throughout the day. Now
that this treatment was pursued

of Jaborandi [illegible] should
but that it will succeed in the majority
of cases by a [illegible] observation.
Quality [illegible] . I have found it
[illegible] in more than [illegible] cases, [illegible]
other [illegible] . In [illegible] I have [illegible]
Baltimore Engineering. With encouraging
results. Alcoholic [illegible] of [illegible]
Stokes is much used in this affection.
What its physiological action upon the
system is in [illegible] it is [illegible]
[illegible] to say. It is recommended
to be given until it slightly [illegible]
if immediate relief does not follow the
action of the medicine upon the system
it should be [illegible] discontinued, lest
it may [illegible] false [illegible] Internally
the medicine should be given in the
form of wine in the dose of twenty drops
every [illegible] hours, until it produces [illegible]

effect upon the system indicates to purging.

Having thus finished what I have to say concerning acute rheumatism as it occurs in its simple or incomplete form, I will endeavour to describe it in connexion with cardiac disease. I will first detail the general symptoms which indicate the existence of rheumatic pericarditis and the diagnostic signs that are pathognomonic of its presence. A patient is exposed to a cold damp atmosphere & some affection with the usual symptoms of rheumatism which it is unnecessary to repeat. Subsequently (after he has been ill for some time) he suddenly feels the symptoms of a most intense stabbing and lancinating pain which he refers to the region of the heart. He is unable to

Cough is with a deep inspiration and some effort to force little it possible occasioning a pressure between the ribs expands the chest. There is a general tenderness of the whole body. I have myself seen the patient a very excessive sensibility to prevent its from making the necessary examination. The tongue is ~~crisp~~ in many cases often covered with a disagreeable coat of white. There is often a slight fever. The heat of the ~~pulse~~ surface is very intense. And the pulse is very strongly full hard and quick. There is also delirium — symptoms which are often present due to which the patient is aware of. And this is delirium. The sudden metastases of the inflammation from the joint to the membranes which lining and line the heart is very frequently

indicated by the various depressions of delirium. Unsuspecting practitioners are very frequently misled when they find this derangement present, thinking that the brain or its membranes are implicated, and consequently directing their remedial efforts to their effect which are wholly useless. And the patient is sacrificed. Now as regards the physical signs they are easily recognized and understood. Why are they generally unknown to the mass of the profession? ~~sound~~ and the delicate manipulation. The mitral valve consists of two layers of serous membrane one adherent and the other a more adherent or superficial portion which admits of a sliding motion or by contraction and relaxation. And it is in this manner that we account for the sudden

D

to the pericardium. When the epicardial membranes are in a state of inflammation and an effusion of lymph takes place which serves to roughen the two contiguous surfaces and to cause friction of the one upon the other and this sound is produced. The bellows sound is very frequent, and this depends upon infiltration of the endocardium. The valves are contracted and puckered and in many cases want their begi-tations from the organization of small drops of effused lymph which is deposited. Whenever this bellows sound may be present without the heart being at all diseased and this depends upon expansive anemia. As when the red corpuscles are blown to parts in a thousand we will invariably have the bellows murmur. But

which in these cases exist in very considerable degree the above mentioned symptoms are very the cause of the existence of Parasites. There are also very important symptoms which may be found in these cases one of them is a ~~burning~~ pruriginous itch or burning sensation communicated to the skin when applied even slightly of vinegar. This symptom is very often absent but when it does exist it is a more reliable symptom. Another very important sign is always present when the effluvia from the intestinal canal is a peculiar vermicatorous movement leading to a pressure by bringing the bowel upon the peroneal region. Also the extent of surface which is still in perspiration is greater when worms are present and in large quantities than

Patients have symptoms of fevers of hypochondriasis.

Diagnosis. The diagnosis in this complaint is generally easy. The intense pain felt in the precordial region, the irregular palpitation of the patients consciousness, the peculiar delirium, the pain in the left shoulder, extending down the arm and the expanding consciousness of the burden of its life in conjunction with the pathognomonic physical indications render it easy of recognition.

Prognosis. The prognosis is generally bad. The younger the patient the more prone is it to prove fatal. But since it is not an infallible rule, that the younger the patient, the more liable is it to disease of the heart. It is since that all persons under fifteen years of age are almost certain to become affected with heart disease

and hence the importance of treating such patients with scrupulous attention and to meet promptly the exigency of some which may indicate its propriety to the heart.

Treatment. This is a disease which demands, like the chronic varieties, the strict attention of the physician. The blood intended to the constitutional influence of the mind as dependent upon health. Our object for supplying the mind so severely is to unfetter the blood and to prevent the effusion of lymph which becomes organized and adhesive the two surfaces of the pericardium together, which sooner or later to embarrass the and performance of the functions of that organ so as to lead to hypertrophy and dilatation

[illegible] the patient's life early.

When we have ascertained that extensive effusion of serum has taken place [illegible] the spirit of [illegible] and at the same time keeping the mouth of the patient moistened [illegible] more certainly [illegible] any other time [illegible] during the acute stage the most decided antiphlogistic regimen is to be enforced, the patient should be kept in a dark room, and all unnecessary attendants or friends should be excluded from the room,

However we will in the majority of cases experience the mortification of seeing our judicious and best directed efforts fail. The patient either

dies immediately or during at the expense of and adherent pericardium which at Reiterate will soon carry him off.

Now Gentlemen I have done all I have to say in relation to this [illegible] Cancer and dangerous disease I have endeavoured to condense in as few words the most practical facts [illegible] concerning its history But Still I am convinced that it is an exceedingly imperfect dissertation but nothing your indulgence I present it for your examination

An Inaugural Dissertation
On
Dysentery
Submitted
To the examination
of
The Provost, Regents
And Faculty of Physic
Of the
University of Maryland
for the Degree
of
Dr of Medicine
By
Mortimer A. R. F. Carr
of
Pennsylvania.

1831

Dysentery.

Of all the diseases to which human nature is subject, there are none that should call more loudly upon our sympathies, or demand more of our attention than that of Dysentery. Its ravages have been felt not only by the pendant nations roams abroad throughout the length and breadth of the land, but it has even invaded the gilded halls of the high, the excellent and the honorable. Nor has it been confined here, but it has levelled the brave, the good and the just to a common level with all that is frail and mortal. It has been raging and spreading, havoc, terror and dismay among its thousands and tens of thousands from the days of Esculapius down to the present period of time. And even now; notwithstanding the rapid advance of scientific discovery, research and improvement of the science of medicine, it is still raging with fearful fatality in our northern climes—

Its true Pathological character has not been distinctly understood till within the last twenty years. Formerly it was considered a rheumatic or Catarrhal affection of the intestinal tube. This opinion was long entertained by many Practitioners, such as Hendrick Stoll and Pajot. Others considered the cause of this formidable disease, to consist in a viliated state of the fluids stagnating in the Alimentary Canal i.e. the bile or the intestinal mucus, and the Pancreatic juice. Others again, among whom Cullen may be ranked, considered the proximate cause of this disease to be a preternatural constriction of the Colon, occasioning those spasmodic efforts which are felt in severe griping, and which efforts have, protraged & terminated in the rectum, occasioning the frequent mucous stools and tenesmus.

Late discoveries and inquiries however, have shown that an inflamed state of the mucous membrane of the Large intestines have been

invariably present to a greater or less extent in this disease. In many cases no trace of inflammation can be detected except in the large intestines; In other instances it may be severe, and distinctly traced from the duodenum to the Rectum, embracing the whole extent of the intestinal tube, though it is in all cases most conspicuous in the large intestines; and such a state being the universal accompaniment of this disease as evinced on post mortem examination, it is but reasonable to conclude that it is of an inflammatory character, and not depending upon the Rheumatic diathesis or otherwise; and in further proof of this fact, it may be alleged, and with remarkable propriety, that post mortem examinations invariably reveal a considerable enlargement of the mucous follicles of the colon extending to the rectum. We also have ulceration coming on about the 5th day, destroying the whole thickness of the mucous membrane, and

Sometimes extending around the whole intestine
[illegible] are exceedingly rare in this disease. It may
be proper to state that it does
not extend so widely — only in very bad cases.
(1.) Ulceration is one of the general results of inflam-
mation, we have undoubted evidence from the
foregoing facts of its inflammatory character.
Again, there exists hence a doubt of its
true pathological character, we will now
proceed to a detail of its —
CAUSES. — One of its most prominent ani-
ses is obstructed perspiration from cold,
or vicissitudes of atmospheric temperature,
cold and moist autumn, succeeding
a warm day. [illegible] are particularly favor-
able to the development of this disease.
Koino Miasmata is also regarded by most
authors as a frequent cause in the produc-
tion of it; in fact it is nearly sometimes
more frequent in miasmatic districts, than

in any other. It is however extremely doubtful whether this agent is of itself sufficient to produce the disease; but its influence in modifying its general character is frequently very evident in hot and marshy districts where the disease generally exhibits a mixed character partaking both of the nature of Bilious remittent fever – and of pure Hepatitis. In localities of this kind it is not an uncommon thing to find intermitting fever ~~symptoms~~ and hepatic symptoms succeeding each other in alternation, and when this form of the disease is met with there is always more or less torpor or derangement of the Hepatic and cutaneous functions; and indeed it might be remarked that there is frequently, more or less torpor of these two functions, whether there be superadded or not of an intermittent character or not:–

In these cases when impaired Nutrition, - ment of these two functions, the blood re- coils from the external to the internal organs, and the liver, in common with the others, becoming engorged with blood, will not only become further disturbed, but contribute directly to congestion in the portal vessels, and consequently to the rise of intestinal inflammation. Among other causes of this disease may be mentioned the immoderate use of unripe fruit; indigestible and unwholesome food; and irritating articles of all kinds received into or generated in the Bowels.

Prognosis — When the discharges in the commencement consist almost entirely of blood, the disease is much more destructive than when they are composed chiefly of mucous, or mucous stained with blood. Copious discharges of blood in the beginning

of the disease are bronchial [illegible] by [illegible] in the congestion in the pulmonary vessels. Albuminuria and pelvic stools in the advanced period of the disease, are indications of renal danger. A typhoidal state of the bowels, more particularly when attended with discharges of a "brown serious fluid," is a highly unfavorable sign. The appearances of bile and the natural feces in the stools, indicates a favorable change. When the tympanitic distension and tenderness in the abdomen abate, at the same time that the stools becomes consistent, we may, and the disease as tending to convalescence, and the management, if the stools assume more of a natural appearance, treatment — There are some morbid conditions present in this disease, which I point out the general indications to be pursued in its remedial management:

namely:- first - inflammation of a greater or less extent of the mucous membrane of the intestinal canal; second, general vascular excitement; third, torpor of the cutaneous exhalents; and fourth, disordered functions of the liver. According to these pathological conditions, the principal indications are; first, to moderate the febrile reaction of the heart and arteries, when it is existing; second, to restore the regular action of the skin and liver; and third, to subdue the low inflammation of the bowels.

In estimating the relative importance and urgency of these indications, it will be well to consider, that torpor of the cutaneous exhalents, and hepatic derangement, are generally subsequent to the intestinal inflammation, as well as to the febrile reaction.

It would therefore seem reasonable to conclude, that the restoration of the functions in the skin, or even a state of thirdness, constitutes a primary object in its treatment, for in proportion as we succeed in the accomplishment of this purpose, so do we equalize the circulation, lessen the determination of the blood to the bowels, and subdue at once the general febrile excitement, and the local intestinal inflammation. And as high arterial excitement is incompatible with the regular performance of the functions, and tends especially to augment and sustain the local intestinal inflammation, the first step in the treatment, consequently, be, to moderate the fever excitement, where it is excessive, by Bleeding; - & many instances

however, the accompanying fever is so moderate as not to call for venesection; and cases sometimes occur in which the fever is of a typhoid grade, and in which the abstraction of blood would be entirely inadmissible. Whenever the pulse is firm and quick, or tense, blood should be extracted. Blood-letting, on the homœopathic to be considered only as a valuable auxiliary, and applicable only to the early stage of the disease, for experience has fully proven that it has never succeeded of itself. In hot climates the disease is often very impetuous in its attacks, and so highly inflammatory, that prompt and copious blood-letting affords almost the only means for the time, it is in fact and necessitate, its rationale termination in congestion of the liver and bowels. Dr. Ward's remarks are relevant to physicians at Gibraltar and the neighbourhood

Armstrong were strong advocates for free and copious blood-letting in this disease, in hot climates, when it was usually accompanied with violent symptoms. Bleeding is without a doubt a highly valuable remedy in the more inflammatory cases of the affection; yet in ordinary cases, as it occurs in temperate climates, it may be preferred, dispensed with. Leeching, and cupping, over the bowels, when there is much tenderness, or the general blood-letting should be used. When the fever is of a high grade, one or two effective bleedings in the commencement of the disease will often, and generally, have very valuable, and will generally moderate the lumbar and abdominal pains, and favour the incipient duration of haemorrhoids, bowel, bladder and stomach upon which our principal reliance must be placed. Having now treated the indications to be derived from

blood-letting, and the condition in which it may be most profitably applied, we will pass on to the notice of our principal remedies in combating this affection.

Purgatives — which when judiciously selected are among our most valuable curative means in this affection. The secretions deposited in the alimentary canal of a highly acrid character, and if suffered to remain there, must necessarily increase the irritation of mucous membrane, as also the suffering of the patient; and to obviate this unpleasant result, the bowels should from time to time be gently evacuated by the mildest purgatives or laxatives. Formerly active purgation was resorted to in the commencement of this affection, under the idea that scybalæ were always lodged in the alimentary canal, and that they constituted a source of irritation. Such a course of treatment is well calculated to defeat the object that

should always be kept in view, for it is evident that active purgatives, even in a healthy subject will give rise to more or less irritation. Dr Johnson remarks, that the search after these imaginary matters (depletion) or the anxiety to remove them has led to a cruel and unjust system of purgatives. Our object in this disease should be simply to evacuate the bowels; and the less irritation that is produced in accomplishing this object, the more beneficial will be the result. And among the class of medicines called aperients, Castor-Oil and Calomel, are our most useful agents in accomplishing our object, as soon as can be, after the commencement of the disease from ten to twelve grains of calomel should be administered; and followed after the space of three or four hours, an ounce of Castor Oil, to which may be added 20 or 30 drops of laudanum.

The union of anodyne and laxative remedies is particularly beneficial in cases attended with much pain and dryness in the abdomen. In some instances the irritability of the bowels is often so great that even the mildest laxatives frequently occasion much griping and spasmodic contraction of the intestinal tube, in consequence of which, little or no frequent discharges are procured by their operation. Under these circumstances, Opium, so far from impeding the operation of laxatives, contributes greatly, to their efficient effects, rendering the discharges frequent, copious and less painful. After a decided impression has been made upon the functions of the liver and skin, by this course of treatment, it may be kept up by Blue Pill, Opium and Hyoscyamus in combination, from 1 to 3 grs of Blue Mass – 1/4 to 1/2 gr of Opium – 1/2 to 1 gr of Hyoscyamus, given every 3 – 4 or 6 hours according

to the urgency of the case; and when febrile symptoms supervene, and there is a deficiency of the natural bile, a combination of Blue Mass, Rhubarb and Asafoetida may be resorted to with the best benefit. (I have known this combination to have the happiest effects in allaying the most distressing symptoms in this form of the disease.)

We will now pass on to the consideration of Emetics as remedial agents in this affection. Many of the older writers have recommended them very highly as remedies in this affection to the Profession, as excellent agents in controlling this disease. And indeed in many cases they deserve, impact much more attention than they at present receive from the Profession. Whenever the disease is accompanied with bilious vomiting, and a brown fur is found along the middle of the tongue, emetics are indicated, and may be resorted to with the best effects.

Ana among all the class of remedies, it is of Specific value in the first position, for it is a safe and certain remedy, and acts with much mildness, and generally causes a perceptible increase in the cutaneous exhalation, but its chief advantages are, ~~over~~ other remedies of this class, in this disease, arises, from its tendency to allay irritation of the intestines, and of increasing, rather than impairing, the tone of the stomach. It is not probable, however, that the beneficial effects of Emetics in this affection depend merely on their evacuant effects, or operation.

The concussion which the act of vomiting causes in the abdominal viscera, excites the portal circulation, which is always more or less engorged in dysentery; promotes the function of the liver; ~~and finally~~ determines the circulation to the skin.

Diaphoretics — Such is the intimate relation which subsists between the ~~external~~ internal

surfaces of the human body, that the increased excitement of the vascular system, coupled with a diminution of action in the skin, and hence, in all diseases of the intestinal canal, connected with high irritation or inflammation, the skin is dry and hard; and hence, the propriety of exciting the cutaneous exhalents, which when properly effected, never fails to contribute greatly, to the removal of this intestinal irritation or inflammation. Such then being a fact demonstrated, beyond a doubt, we can readily see the propriety of using such medicines as will effectually promote this object, and yet, we should a regulate this so as to keep up a pretty uniform diaphoresis. Such a course seems to possess a greater command of influence over this affection, than free purging, and to effect this purpose, the Pulvis Hydrargyri Cum Camphora Compositus is preferable, the best article we possess. It may be administered in the quantity of four grains combined with

one of Dulcamara & [illegible] given every 3 or 4 hours. Combinations of Opium and Stramonium, also form an excellent diaphoretic in this disease; from one to two grs. of the Calk., with two grains of the powder, may be given every two or three hours until diaphoresis is produced. The employment of diaphoretics should always be accompanied with tepid mucilaginous drinks, such as milk, gruel, [illegible] water, a view to its constitutional effects is a remedy of excellent powers in this disease

Opium, may also be considered one of the first remedies in this disease, but it should be used with much care and caution; it should never be given too freely in the beginning of the complaint, when the febrile reaction is of a vigorous grade.

Nitrous Acid in the form of Hoffman's Mineralized mixture has been strongly recommended by many authors, and not without much credit.

Acetate of lead has also been tried, in tablets in union with opium in this affection.

Counter-irritation. This may be regarded as almost paramount to all other remedies in this affection. Blood-letting, to a certain extent, recommended by some authors, and it deserves to be ranked as the best mode of abstracting blood in this disease, as it is never, always indicated. But in order to derive the full advantages of counter-irritation, we should resort to the blister. This, it seems, exert a most powerful influence over this disease, and they should be used almost regardless to size. Often free vesication has been induced, the application of emollient poultices constantly kept up, will in a short time often allay the most irritation of the intestinal canal. This has been at least the result of my own experience in a large number of cases. Yet some practitioners among us may be ranked Dr Eberle formerly of Philadelphia

condemns in a great measure, such a practice as rash and unjust, and perhaps the application of irritant poultices, or stimulating embrocations, such as a mixture of oil of Mirbane, Jamaica pepper and camphorated spirits, in the proportions of an ounce of the former to half an ounce of the latter. This may indeed be an excellent purpose in the chronic form of the disease, but in the acute, the greater care should be taken the impression made by counter irritation the sooner will it yield to other qualifying portant remedies. This then comprises in my humble judgement the most approved method of treating this over-much over-dreaded malady.

Yours truly,

Mortimer A. McCall.

University of Maryland

December 23d 1850.

AN

INAUGURAL DISSERTATION

ON

SCARLATINA,

submitted to the examination

OF THE

PROVOST, REGENTS,

AND

FACULTY OF PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

Doctor of Medicine,

BY

FRANKLIN LEWIS SEWELL,

OF

Virginia.

1851.

Gentlemen:-

In accordance with one of the established laws of the University of Maryland that each student shall compose a dis=-sertation on some medical subject. I shall endeavour to advance a few imperfect ideas on the dis=-ease Scarlatina.

Scarlatina

Scarlet fever appears under every grade of violence, from the simplest and most tangerous, to the most severe and malignant forms of the disease.

This is a contagious, febrile disease, characterised by inflammation of the fauces, and a scarlet rash, usually appearing about the second day of the disease, desquamation, usually takes place about the eight or tenth day. This disease, is principally confined to Children, it has been known to attack old persons, it often only attacks an individual once, the two striking and important features of the disease, are the affection of the throat and skin. They may both be well marked, or only one of them,

Most authors describe three varieties of scarlet fever. the

disease, the Anginose and the typhoid. Symptoms, usually appear at an indefinite period, varying in different individuals, the disease usually sets in with weakness, languor, rigors and pains in the back and extremities, the fever generally sets in with a quick pulse, dry and hot skin, flushed face, furred tongue, anorexia, thirst and great muscular weakness. Sometimes nausea and vomiting, occurs also, more or less headache or other symptoms of nervous disturbances, such as restlessness, delirium, stupor, coma or convulsions, the fever varys considerably in this disease, it may occur in the mildest form, scarcely amou-

-ating to disease, vice versa. Along
with the fever, there is always more
or less irritation of the fauces,
which examined, appears red, and
not unfrequently swollen.
The tongue is generally coated with
a white or brown fur, the rash
usually makes its appearance,
about the second day of the fever,
often however earlier or later.
It usually comes out first on the
neck, breast, arms and face, in
the course of twenty four hours,
usually diffuses itself over the
trunk and limbs, sometimes
it is very scanty, presenting
here and there small patches
of moderate extent, but much
more frequently, it covers the whole
of the body. This rash consists of
innumerable red points, which,

[illegible] diffused blush to the skin, resembling much the shell of a boiled lobster, the redness, is diffused equally over the whole face and breast, and appears with intensity in the flexures of the joints, as in the [illegible] and in the bend of the knees. When the skin is pressed with the points of the fingers, the redness disappears for a moment, leaving a white transient spot, any thing calculated to increase the general excitement, has a tendency to deepen it, the colour, is most intense during the exacerbations of the fever and is increased when the patient coughs, cries or is otherwise agitated. The reddened

[illegible] [illegible] [illegible] [illegible]
sometimes however, it has a rough
feel like that of gooseflesh, in
certain parts of the body, the skin
itself is often slightly swollen, espe-
cially in the face and hands,
a crop of small miliary vesicles,
which make their appearance
at different stages of the erup-
tion small pimples and pustu-
les sometimes, also mingled
during its decline. The fever
does not abate upon the appear-
ance of the rash, but continues
with various degrees of violence
throughout its whole progress,
the pulse, is usually very frequent,
much more so than in febrile
diseases generally. It is often
140 or 130 in the minute, some=
=times more frequent than this,

occasionally, it has considerable force, but this is not its general character, the skin, is dry, and burning hot, the fever often has exacerbations towards evening, and is occasionally attended with delirium or delirium and sometimes with comatose symptoms, the bowels are generally constipated, but sometimes, diarrhoea occurs in the advanced stage. The affection of the throat, sometimes occurs before the appearance of the eruption, but very often, it becomes the most prominent and distressing symptom, attended with swelling within, and without, painful deglutition and sometimes impeded respiration.

The disease usually attains its height from the fifth, to the ninth day, [illegible] day up, the heat of skin diminishes, the pulse becomes slower and fuller, the throat affection abates, the tongue if it has [illegible] previously thrown off its fur, does so now, often, however remaining for some time reddish.

Desquamation of the cuticle, begins to take place about the decline of the eruption, sometimes it is furfuraceous, seperating in small scales from the face and body, when upon the palms of the hands and soles of the feet, it comes away in large flakes, sometimes so large as to form a glove, or a slipper.

The process of desquamation, is often attended with a very troublesome

itching and irritation, and sometimes with much tenderness of the skin, it is usually completed, about the end of the second week, it sometimes requires a longer time than this, in consequence of a succession of exfoliations.

Scarlatina simplex - This form of the disease, may be distinguished generally by the absence of the throat affection, there are only the fever and the rash. This is considered the definition of scarlatina simplex, as a general rule, the complete exemption from inflammation of the fauces, is very rare, however moderate the case may be, the degree of soreness in the fauces is scarcely less common, than the eruption itself, scarlatina simplex is generally very mild; in some cases the patient is not confined to bed

at all. The first symptom which attracts the attention of the patient, or his friends, is the scarlet blush upon his face and neck, it is generally attended with some slight febrile symptoms, this disease, lasts from five to six days, but in other forms of the disease, it is much more severe and lasts for a much longer time. There is a universal diffusion of the rash, which is of an intense redness, the heat of skin and frequency of pulse, are extreme and not unfrequently a delirium ensues during the exacerbation of the fever at night.

Scarlatina Anginosa, takes its name from the much more severe affection of the throat, which accompanies it, as the febrile symptoms are not so much aggravated in this variety than

In [illegible] the patient complains from the onset of stiffness of the muscles of the neck and [illegible] jaw, the mucous membrane of the pharynx, is of a bright red color, after the second day, the tonsils become greatly swollen, the voice is hoarse, deglutition is painful, difficult, and sometimes the liquids attempted to be swallowed, are returned by the nostrils, Respiration is painful, and there is a sensation of suffocating constriction about the throat, the pulse, is also very frequent, the skin very hot, and there is restlessness, headache comes, slight delirium, epistaxis, nausea, and sometimes vomiting, The eruption, presents nearly the same appearance as in Scarlatina simplex, but does not always appear on the second day, and

often not until the third, nor does it spread so extensively, it appears in the form of small scattered [illegible] [illegible], and [illegible] different regions of the body, especially on those parts, on which the bowels rest, the pillars of the soft palate, the tonsils, and pharynx, are in many cases covered with thick mucous, or with flocculi of grayish, white, pultaceous matter which sometimes remains attached for several days, and in other cases, are removed every twenty four hours, these pultaceous exudations, are sometimes tinctured dark colored by extravasated blood, the tongue often cracks, as well as the lips, which are covered with black crusts formed by dried blood, the tonsils, uvula and posterior fauces, are also occasionally slightly

lymphatic glands, the external swelling is hard and painful and sometimes prevents the patient from opening his mouth so far as to permit an inspection of the fauces.

Scarlatina Maligna — derives its name from the much more severe and extreme violence in which the system is at once overwhelmed by the force of the disease, it is even more severe than the simple or anginose varieties of scarlatina. In some ~~instances~~ instances the patient is completely prostrated, in the very first stage. Now and then, during the prevalence of scarlet fever, cases are met with in which the patient is attacked at once, either with comatose

result, in the course of a few days. When children are attacked, typoid symptoms supervene, there is coma, delirium and stertorous breathing, and tumefaction about the neck. My preceptor, Dr William R. Cox, says, when the patient lays in a comatose state for a short time and is preceded by slight rigors and stupor is succeeded by stertorous breathing, we may suspect a collection of water on the brain, or Hydrocephalus.

The signs from which malignancy may be suspected, are pains in the loins, and extremities, and a greater disposition to delirium or stupor, a weaker though, not less frequent pulse, as the disease advances, the symptoms assume a more decided typhous, or malignant character. The whole

throat is of a deep red or a mahog-
-any colour, ulcers, often form with
considerable destruction of the soft parts,
the odour of the breath becomes fetid,
the tongue becomes brown, as well as
the teeth and lips incrusted with a
dark border, blood oozes from fissures
in the lips and tongue, and at leng-
-th collapse takes place, with anx-
-ious features, ghastly expression, a
cold clammy skin, a fluttering
pulse and involuntary stools, ending
in death, towards the close of the first,
or in the course of the second week.
Sequela. Few diseases leave a longer
train of evils behind them, than
Scarlet fever, among the most com-
-mon, are abscesses in the vicinity of
the parotid and submaxillary glands,
and which are often very large
and exhausting, the patient often

surviving scarlet fever, dies of hectic. Sometimes an abscess into the cranial cavity, and gives rise to long continued and exceedingly obstinate discharges of pus from the ears, ulceration of the membrana tympanum, sometimes follows. In other cases the eustachian tube becomes affected by ulceration, or inflammatory thickening and hardness of hearing, is the result. Diarrhoea, not unfrequently happens after scarlet fever, but soon yields to judicious treatment.

The most serious and fatal of all the sequelæ after scarlet fever, is dropsy, the patient is liable to this, during desquamation, and for a considerable time afterwards. This generally follows, when the delicate skin has been exposed to cold. It is generally in the form of—

accompanied by symptoms of acute hydrothorax, hydropericardium and even hydrocephalus, bearing approaching to stupor with other signs of cerebral disease is a not unfrequent attendant on the dropsy of scarlatina. This affe=
=ction, generally yields to treatment.
Anatomical Characters - sometimes every trace of the eruption disappears after death, sometimes remains of it may be seen in purplish, or livid spots, when an incision is made into the skin, it is found reddened and injec=
=ted, among other parts the alimentary mucous membrane frequently exhibits signs of inflammation, and in cases the follicles have been found enlarged and softened, the blood varies considerably in different stages of the disease, in some cases it is thick, and in others it is thin and

malady, in some, dark, in others red.
Causes, desquamation, is the result of an
unknown contagious principle, its conta-
-gious has been doubted by some and
among them, by the late Dr Dewees
who stated that he had never
seen any decided proof, that it had
communicated itself in any one
instance, The fact ~~is~~, that one
member of a family is generally
first attacked, and afterwards
others at an interval of several days,
is a very strong fact in favour of
its contagion, It is supposed that
the causes acts through the medium
of the atmosphere. Scarlet fever,
frequently occurs epidemically, it confines
itself sometimes to a small district
of country, a single city, or even part
of a city, it is supposed, that physic-
-ans who are visiting cases of

dead at once: and then visiting other patients out of that district, perhaps seven or eight miles off, will communicate the disease to them, if he is not particular in changing his clothes before he visits them, this should always be attended to.

The epidemic influence, differs greatly in its effects, in different instances, at one time gives rise to mild, and at other times to the most severe and malignant form of the disease, in some cases, bleeding is well borne, and in others is very hazardous, and the patient dies if not stimulated. Some persons appear wholly insusceptible to this disease, although exposed to it from childhood and during the remainder of their lives, at different epidemics. No age is entirely exempt from this disease, but children

are much more liable to it than adults, the susceptibility seems to dim=
=inish from puberty upwards.
This disease prevails at all seasons, but most frequent in spring and summer. As a general rule, this disease seldom ever attacks the indi=
=vidual more than once, exceptions have now and then been noticed, perhaps one in a thousand cases.
The period of incubation varies from three days to two weeks or more, five days is the average time.
Diagnosis – This disease may be confou=
=nded with measles, more frequently than any other, it may be distinguished very easy, if we bear in mind, the absence of catarrhal symptoms in the former case, and the rash generally makes its appearance about the second day in scarlet fever, not

cases with some confidence predict a favorable issue under favorable circumstances.

Treatment – In the greater majority of cases, scarlet fever recedes and favorably without treatment, hence persons have gained the reputation of curing the disease, when they did but little or nothing for it, and left it to nature to accomplish a cure, when the symptoms are very mild, it is advisable to do but little more, than to keep the bowels open, administer cooling drinks, keep the apartment well ventilated, and regulate the diet of the patient, an emetic, is thought to be very useful at the beginning, in modifying its future course. This remedy, should therefore be administered in every case, when it first makes its

In appearance, it cannot do any harm, and it may be a great deal of good. It is impossible to point out what is to be the character of the case. It will be proper to follow the emetic with a purgative dose of calomel, which if it does not operate in six or seven hours, it should be followed by castor oil, magnesia, or one of the saline cathartics, the bowels should be kept open if necessary by mild laxatives, during the progress of the disease. if there is much excitement, then of a depletory character should be used, such as sulphate of magnesia, if there is nausea and vomiting, seidlitz powder should be used, when there is evident acidity of the stomach, magnesia, is one of the best remedies we possess, when there is pain in the abdomen,

castor oil is very good, rhubarb when the system is too feeble to admit of active purgation, If there is sick headache castor oil combined with laudanum after the bowels have been cleansed is a very good remedy.

Bleeding may be used in some cases with advantage, It should also be remembered that the influence of the causes is in certain epidemics, much less depressing than in others, while employed in one case with advantage may prove fatal in another, it should always be used with caution, and only employed when there is great danger of inflammation of some vital organ, In doubtful cases it is best to have resource to local depletion by leeches or cups, leeches may be used where there is much

external swelling around the jaws, It is seldom advisable to bleed in any case of scarlet-fever, in the greater majority of cases where the skin is dry and hot and no sensation of chilliness experienced by the patient, the application of cold water externally is a highly useful remedy, It relieves the heat of the surface quiets restlessness and adds to the patients comfort, It is sometimes necessary to sponge the patient with warm water as a substitute for cold, When there is much fever: internal the patient should be allowed to drink cold water and hold ice in his mouth if he wishes it, Small doses of the nautral mixture may be given every hour or two during the day, Such substances as

muriate of ammonia, citrate of ammonia or acetate of ammonia may be given. When the stomach is quiet, small doses of tartar emetic may be added, when the stomach is irritable, ice lemonade or the effervescing draught should be preferred. If there are any nervous symptoms they may be counteracted by mild anodynes,
If a sour smell should exhale from the patient we should give to him bi carbonate of soda or potassa several times during the day, If the patient has frequent pulse digitalis may be given to him in small doses, if there is much debility tonics and stimulants should be administered such as Quinine or Peruvian bark, Stimulants, capsicum,

carbonate of ammonia oil of turpentine and wine whey. When nervous symptoms are superadded to debility, musk asafoetida valerian and camphora may be employed and some rich articles of food. In cases the eruption should come forth sparingly or retrocede, efforts should should be made to invite it to the surface by the warm bath, and other active rubefacients, Local Remedies are important in slight affections of the throat; demulcent, astringent or saline gargles, slippery elm water acidulated with muriatic acid, infusion of red roses, weak solution of alum, when gangrenous patches are observed in the fauces, capsicum

infused in vinegar or water is a very good application, the throat should be well gargled with it; sulphate of zinc is very good, nitrate of silver has been used with advantage as an application to the patches to prevent their spreading, solution of chloride of lime or soda, and creasote, may be used as a gargle to prevent the offensive odour which proceeds from the throat. When the tonsils become very much inflamed, and enlarged, respiration difficult, the best remedy is to scarify the tonsils with a lancet, so that they may bleed freely, and relieve the engorged state of the vessels, so that respiration may be carried on with more facility and ease to the patient.

Rubefacient application to the throat, such as the liniment of ammonia, tincture of capsicum or oil of turpentine may be used. Large emollient poultices to the throat are sometimes used with advantage, blisters to the throat are supposed to be of great value in this disease.

It is important to guard against exposure to cold during convalescence, and to keep the bowels regularly open. If tonics are needed, Quinine or some preparation of iron may be given.

Preventive treatment. Children should be kept separate as far as possible from the disease, and free ventilation of the sick chamber should always be attended to. The older children grow the less susceptible they

are to the infection of this disease. There has been several drugs used as prophylactics, in this disease, among them belladonna is perhaps the best we possess.

[illegible]

[illegible]

Virginia

AN INAUGURAL DISSERTATION ON

INTERMITTENT FEVER,

submitted to the examination

OF THE

PROVOST, REGENTS,

AND

FACULTY OF PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

BY

JOHN EDWARD GARROTT,

OF

MARYLAND.

1851.

Gentlemen:-

In accordance with a long-established rule of the University of Maryland, that each candidate for graduation shall produce a Thesis for your honorable consideration. I offer the following imperfect and unconnected remarks on Intermittent Fever. Should our learned Faculty detect any errors in the following pages, I hope they will be excused as I have and continue to ask for information.

Respectfully the Author

Intermittent Fever

This is a disease known to us by the febrile paroxysms recurring at stated intervals and the absence of fever between the paroxysms. The intervening period, from the end of a paroxysm to the commencement of the next is called the intermission: the whole period occupied by one paroxysm and the succeeding intermission, is called the interval. There are ordinarily three types of this fever: the quotidian, tertian, and the quartan. By the term type we mean the order in which the paroxysms return. In the quotidian the chill returns every day at or near the same hour: the tertian every second day: and the quartan every third day.

Besides these we have other types but as they are of rare occurrence I will pass on to the double varieties which we not unfrequently meet with: viz.

Double quotidian, is when there are two chills in the same day; double tertian with a chill every day, that is on the first & third days, and on the second and fourth days the paroxysms are similar, but frequently differing in the hour in which they come on that is first and third days being more severe.

Double quartan, chill on two successive days first corresponding with the fourth day, second with the fifth day, one being more severe than the other. [illegible] tertian, is by far the most frequent.

Besides the types we have three stages called the hot, cold, and sweating.

In the majority of cases we have no premonitory symptoms the patient may have committed a debauch, of course there [illegible] symptoms of indigestion and chilliness, pulings about the head &c.

The disease which we call the cold

stage is now ushered in: the sensations of the patient are now decidly morbid, in most cases he complains of horripelation; or it may be a true rigor; this cold sensation is sometimes confined to the nose, hands feet, and extremities generally, fingers blue, drawn up, and have been known to shrink to such an extent that rings have dropped from the fingers.

In the loins pain is felt stretching over the abdomen; also in the left hypoch=ondrium, owing to the congested state of the spleen, eyes haggard &c.

The patient will often complain of intense cold, but on applying your hand to the surface you may find the heat if anything increased. Often intense thirst; the tongue may be moist, even the functions of the stomach disturbed and the desire for food lost; occasionally

nausia and vomiting of the food, mucus, or and bilious matter, and blood are experienced urine is [illegible] said to be pale, limpid, and copious: other secretions are generally scanty.

Breathing deep and irregular, feeling as if there is a weight in the epigastrium, sometimes accompanied with a short and dry cough. Pulse various in some slow, quick, again small &c.

The duration of this stage is from half an hour, to an hour. The nervous system is also affected, and we frequently find it [illegible] impaired, showing itself in the head, temper, mind, general depression of spirits &c.

Now we have symptoms of another cast showing themselves, symptoms that accompanied the cold stage gradually subsiding, a glow of warmth is experienced by the patient, at first it is very pleasant.

It is first felt about the face and temples, until it gradually spreads itself over the whole body, no signs of the cold stage remain, and the patient is suffering with universal heat.

The cheeks flushed, eyes sparkle, and the skin congested with blood. The actual temperature of the body increased, great thirst; mouth hot and dry, pain more of a throbing nature, respiration more regular pulse not so feeble, the secretions dem= =inished; urine scanty, highly colored, and few burns the urethra in its course. Its average duration is from one, to two and sometimes four hours, or on the the other hand it may continue for twenty.

Again we have a third stage, making its appearance on the face, breast, and gradually spreading

itself over the whole body in the form of perspiration, which is properly called the sweating stage. At first the patient experiences some relief, as before; he continues to perspire until it becomes profuse, and cessation of the following symptoms.

Headache disappearing, febrile paroxysm abating, the undue circulation is subdued, pulse natural, urinary organs resumes their natural function, and the patient not unfrequently falls into a calm and refreshing sleep; when he awakes, he feels better and is free from fever.

The duration of this stage like the others varies greatly; as a general thing it does not exceed that of the cold stage; seldom less than one hour, and scarcely ever exceeding eighteen. We may then say the ordinary duration is from four to six hours. During the intermission, the

patient is left, feeling well, perhaps the pulse may be weak: by asking your patient: How he is, and, what he com=plains of, he will-be most likely to say, I feel well, and complain, of nothing, which is the greatest blessing bestowed upon mankind, if they can say so with truth: and they may-be speaking the truth as this is a disease of such a nature.

When we have our paroxysms occuring sooner and sooner, it is a pretty sure sign, the patient is getting worse: but vice versa, later and later it is a good evidence, he is getting better, and we may soon hope by skilful treat=ment, and proper management, without complications, to have our patient restored to a state of health.

The type of this disease is known,

in the time of its occurrence, as the quotidian in the morning; tertian about ten to twelve o'clock; quartan in the evening, sick may often prevent the return, or the paroxysm, as it seldom ever, occurs during the night.

In the majority of cases we find this statement to be correct. We may not always expect to find the stages so well marked out, for we may have some of the stages without necessarily having the others, or so slight that the patient may not remind having had them. The disease may also confine itself to a single limb: spasing regularly through all its stages and the rest of the system remaining undisturbed. It may also change its type several times ~~times~~ during the same attack. For the sake of

briefness. I shall say but a few words concerning the Grades and Complications, and mention some of the most important which we may meet with.

In the first it may be said to be inflammatory, or it may exist independently of inflammation. The most simple form is bilious and nervous indigestion; sometimes nervous complications with a low type, also a malignant type; when you have these complications, you are required to make your treatment, applicable, to the complication, rather as a primary cause, than to the intermittent, as a result: this is more applicable to the first, for when you remove the cause, you generally cure the disease: but the latter complication require a decided and energetic treatment at once, procrastination in a case of immergency, may

from the distinction of your patient; and a loss of your reputation as a medical man

It is proved if intermittent fever is checked specifically, it will leave no unpleasant effects behind, more than a disposition to return: but if allowed to run on indefinitely it often produces very unpleasant effects as enlargement of the spleen, liver &c; however these may be the result of the same cause as that which gave rise to the intermittent: but it is highly probable that such are the results of frequent intermittent paroxysms, as it is said the spleen can often be seen to enlarge during the cold stage.

The blood which flows in capillaries becomes congested in the viscera, and especially in the spleen, to prevent injuries from such irregularity of the circulation to more important organs.

The cutaneous connexion subsides during the apyrexia but returning again in an aggravated degree in the subsequent paroxysm, in some instances it becomes excessive.

Now we not unfrequently have dropsy as a result of successive attacks of intermittent fever. This affection sometimes occurs during the continuance of the disease and has been ascribed in part to a vicarious secretion into the cellular tissue and serous cavities. But it is more frequent after the intermittent has been interrupted.

It may possible be owing, in part, to the substitution of a serous discharge for the perspiration to which the system was accustomed, and to which the process of sanguification had become accommodated.

Another source of ~~[illegible]~~ dropsy in intermittents is organic disease of the liver and spleen

Now with regard to the anatomical characters of this fever, none has scarcely been ascertained. The lesions, which generally prove fatal, are considered sometimes to be purely acc=
=idental; Inflammation of the brain, its mem=
=branes, cerbral congestion and various diseases of the spleen and liver, may be among the affections of those, who have died of intermittent fever.

The liver congested with blood; a dark or black color, enlargement with or without change of structure, increased density, softening, suppuration, &c are the lesions most frequently observed in the organ.

The spleen is also subject to alteration: its texture may be altered, sometimes, softened, so as to resemble coagulated blood, again it has been ruptured, and a dark and grumous blood found in the cavity of the peritoneum. Of the causes of this

fever, malaria is by far the most frequent; and indeed we may go so far as to say its almost the only cause: but scien-tific investigators have tried to prove this theory to be incorrect, as paroxysms may occur from the introduction of instruments, worms, indigestible food: and irritation arising from other causes, and the patient had not been exposed to the malaria, but still doubt remains, on this subject since malaria, can lay dormant in the system for days, weeks and even months; and finally wear itself out, without some exciting cause to make ~~to make~~ it manifest itself; whether this theory is correct or not, I will leave it; to abler and more experienced minds than mine to decide.

When we have ague and fever, it is the supposition, that it is the result

of malaria. What it is? is a question that has puzzled the imbibers, Chemists have revealed but little, and it still seems to remain a theme for scientific speculation.

I have been taught to believe it is a product of vegetable decomposition: as it occurs in such situations, where moisture and warmth abound, &c.

This poison is taken into the system, more easily when the patient is exhausted by fatigue, hunger, debilitated by previous disease, or mental depression, or during sleep: there it may remain for a longer or shorter time, as I stated before; being rather a predisposition to disease, than a disease itself: frequently attacks of the disease is brought on, which by proper care on the part of the patient, it might have been avoided.

Requiring in the majority of cases

Con. of the exciting causes, these are viz. Cold or cold bath, heat of sun, mental excitement, debauching of some kind, or a purgative dose of medicine may bring on the attack.

Again persons residing in malarious regions, moving to healthy ones may have an attack, more easily than those residing all the time in such situations; supposed to be owing to the new and exciting cause to which they are exposed, and the change of habits.

This disease is more common towards the close of summer, and commencement of fall, before severe frosts come, Men more subject to it than women; blacks in this country far less than either.

It is also a disease that is considered endemic, but not contagious. The only diseases with which intermittent fever

is likely to be confounded, is hectic and remittent fevers, but by the symptoms of the former diseases the diagnosis can be easily made out.

In the uncomplicated forms of intermittent fever, without complications, and without a malignant tendency, the prognosis is almost always favourable.

Inflammation of any of the vital organs, of course gives rise to the apprehension of danger: principally from its secondary effects, although hope of saving the patient, is better, than where they arose from other causes: not unfrequently cases of the most unpromising character yield to suitable treatment.

The Treatment.

It was formerly a question of dispute, whether this disease should be cared or not. I believe time and common sense

have decided the matter. Prudence has decided that all cases should be cured as quickly as possible. This question settled, we divide the treatment, into direct and indirect; that is, during the paroxysm, and between the paroxysm.

In the first place little need be done during the chill: but should treatment be needed, it can be palliative. Confine your patient to bed, cover warmly, administer hot drinks, warm pediluvium, apply bricks to the feet, or bottles of hot water, bags of hot sand, salt, bran, &c, along the sides, feet &c, Hot air, or Steam bath is an excellent mode of using the vapor bath, it is often very useful.

When there is much nervous disorder XX gtts of laudanum, grs v of dovers powders, or often a good and stimulating emetic, shortens the chill, and a mustard

plaster over the abdomen, frequently, lessens the hot stage. Dr. Mackintosh recommends bleeding in the cold stage. This I think is unsound pathology, for it weakens the patient without cutting short the stage; therefore in the vast majority of cases it does harm.

We can ameliorate the hot stage by putting on a refrigerating treatment, give cold drinks in moderate quantities effervescing draughts, soothe the stomach, deminish fever and promote perspiration, Antimonials in such doses as not to produce nausea.

In this stage bleeding, is sometimes useful, when we have a strong, full and hard pulse, both local and general and we may use opiates until we calm the symptoms and produce perspiration--

During the sweating stage, care must be taken that the patient does not take cold, by removing the bed clothes; you may give diluents drinks; but the above precaution, will often answer.

During the intermission our services are most needed: give an emetic of Ipecac to clear the stomac of its offending matter. In all cases when you can it is better, to clear out the alimentary canal, by means of a good cathartic, subdue inflammation if any exists, &c.,

This is a general rule: but like many others it has, many, yes very many deviations. Then commence your antiperiodic.

Peruvian Bark, or its preparations, is the best we have in our possession. Sulph. Quinia is the best form, for obvious reasons. If given in sufficient quanity, proper time

and in a simple case of intermittent fever it often cuts short the disease at once, especially in the tertian and quotidian forms of the disease.

It should be given in doses of ℥ ss gro iij to ℥ i xx according to the case.

The manner in which quinia acts has not been fully explained, but supposed to act by the impression it makes upon the nervous system; and the impression it makes there resists the poison, &c.

When quinia has a tendency to purge, you will find a little laudanum is often an excellent addition.

It has been made a question of dispute whether quinia should be given during a state of active inflammatory excitement on account of its stimulating properties, lest it might aggravate the the inflammation. This theory is answered by immum=

=eral trials, that a paroxysm is more likely to aggravate the inflammation, than the quinia is; and, consequently some suppose the sooner the medicine is administered the better.

The general rule is that sulphate of Quinia should not be given, during a state of active inflammation, but subdue it, by proper remedies; ~~this~~ And then commence your remedy, This is a general rule, although it does no warrant us, to let our patient die, or supposing the next paroxysm may, prove the distruction of our patients without trying this great Antiperiodic remedy.

You must not be satisfied with merely stopping the paroxysm. Patients will often be too ready to give up the medicine, as soon as the paroxysm has onced missed. But the disease is apt to return; it will be right and prudent

to go on with the quinia for ten days or a fortnight after the patient seems cured, gradually diminish=ing, after the first week the amount and frequency of the doses.

Arsenic is another substance which has great and unquestionable power over ague. It may be considered to have marked ad=vantages: it is efficacious; it is cheap; and it is tasteless. It is well adopted for the poor, for children, and for patients in every rank in whom there is much irritability of stomach present: but it must be admitted it has a serious disadvantage of being an active poison. One overdose may prove fatal, and even long continued use in minute dose may lead to lasting disorder of health. It is an unsafe remedy and should not be trusted in the hands of the ignorant. It should not be given except under the eye of the physician, and even then with caution.

When quinia proves too irritable for the stomach, in children to induce whom to take quinine in some form is impossible. And under the eye of the medical man, Arsenical solutions, will often be found an excellent substitute for quinia. Fowlers solution, is the best form in which Arsenic is given, dose for adult three drops to ten three times a day until some effect is produced upon the system, or the disease checked: when of course it must be stopped immediately.

To infants the dose must be in proportion to the age. A child one or two years old one or two drops three times a day may be given. But keep the above rule in mind.

The salts of various metals have in some measure the same Antiperodic power, viz. Sulphate of Copper, Sul. of Zinc, And the different salts of Iron have had some reputation, Sulphur, Alum, Tinct of Iodine has been highly

recommended in obstinate cases. Besides these metalic salts, the vegetable tonics & astring=ents have been employed in the treatment of this disease with some success. viz, Dogwood Bark, Wild Cherry, Willow, Pomegranate, Chamo=mile, Boneset, Kino Mahogany, Narcotina has lately been brought into notice, not without success. Spiders Web, has been used with con=siderable reputation.

There is another mode of curing the disease which is sometimes effectual, It is in making a strong impression upon the system, so as to occupy the ground, and thus preclude the entrance of the disease. One of the most efficacous of this kind is to adminster an emetic so as to have it in full action, during the chill then adminster a vegetable decoction warm, cover warmly, it will produce prespiration & set aside the paroxysm, Opium an hour or two before the chill, may act in the same way

Blisters, brandy must other have also been successfully employed.

The diet of the patient, during the disease should be light, digestible, nutritious, and unstimulating.

Prevention, miasmatic regions should be avoided persons compelled to pass through such situations should not be exposed to the morning or evening air, should not be with the stomach empty, nor after fatigue or exhaustion of any kind. The excess heat of sun, and excesses of all kinds should be scrupulously avoided, nor to remain long in wet clothes: the use of a fine gauze veil has been highly recommended, supposed to keep out miasmia. But a much better and more effectual means is to keep the system steadily under the moderate use of quinia, or Peruvian bark.

An
Inaugural Dissertation
on the
Conduct of the Physician
Submitted
to the Examination
of the
Provost, Regents and Faculty
of the
University of Maryland
for the Degree
of
Doctor of Medicine
By
William B Roberts
of
Carroll County
Md.

Conduct of the Physician

To a candidate for the degree of Doctor of Medicine, there is probably no subject connected with his medical pupilage, that exerts so great an amount of interest, anxiety, and ambition, as the composition of a Thesis, worthy to be presented to so respectable, literary, and talented a body as the faculties of medicine generally are. Even he has selected a subject exactly suited to his particular train of ideas, or one with which he is sufficiently familiar to express himself fluently and comprehensively, the entire catalogue of special

diseases has been studied and reviewed, and many of them minutely investigated; and not unfrequently Chemistry, Materia Medica, Surgery, and Obstetrics, indeed each and every branch and component of Medical Science, have been thoroughly explored and generally perused.

Various and multifarious are the aims, objects, and ultimate designs of the ambitious and vacillating authors, as they engage in this novel and interesting exercise. Some who have made themselves conversant with many of the ancient theories of medicine, become fascinated with their peculiar dogmas and subtile logic and

become captivated by their strange, exclusive, and unintelligible systems, and determined if possible to share the honors of again resuscitating and presenting to the world, these long slumbering hypothetical and speculative ideas, in a more attractive and inviting light, they clothe them with a more gaudy attire, and present them to the votaries of science, that they may receive their approbation and applause, and if possible an honorable rank among their established contemporaries.

Others conceited enough to believe themselves perfectly original, ambitious of fame or admiration, endeavors to induce a speculative disquisition, or overturn some

some established principles, by advancing strangely devised propositions, and mysterious hypothesis, and sustaining them with enthusiastic eloquence.

But the great majority of the alumni, content with merely accomplishing so arduous a task, select subjects, with which observation and study, have made them familiar; and not presuming upon their own intuitive power of thought, they express in plain, simple, and comprehensive diction, the ideas, which successful and veteran practitioners have, by their experience and vigilant attention, discovered to be the most productive of happy results.

Guided more particularly by the

Cost of these motives, I have been induced to combine and arrange, a few ideas, relative to a course of conduct, necessary to be adopted and pursued by the Physician. In the elucidation of this subject, I shall allude more particularly to his deportment in the sick room, and his demeanor toward invalids. Were I asked the question, where lies the principal secret of success in the practice of medicine; I would unhesitatingly answer; nothing so soon obtains the esteem, respect, and confidence of the invalid, in so short a time lays the foundation of a large and lucrative practice, and ultimately paves the way to eminence and distinction, as an upright

and correct deportment toward the infirm and suffering. Can we but animate and appeal to the sacred and honorable ashes of the sage and memorable fathers of our glorious and immortal profession for a testimony in behalf of this assertion. Could they but hoist the curtains that separate them from the material world, they would immediately come forth, and unanimously declare its truth.

Before entering upon the labours of our honorable profession, we consider it the imperative duty of every one of its disciples, not only to have becomes thoroughly conversant with the theory of the Medindi Scientia, as to have passed, successfully, a -

rigid examination in its parts and departments; but to have been a minute observer of the symptoms, progress, and treatment of many diseases, that when they go forth, solum, and in their own strength and skill, to administer the healing balm, and bind up the bleeding wound and fractured limb; they may display a proficiency and an ability, sufficient in the majority of instances to insure success, and obtain the approbation on confidence of their patients and witnesses; and possibly, lay the foundation of a reputation, prognostic of a future career of usefulness and celebrity.

That some practical knowledge

is unequivocally necessary to the young practitioner, is, clearly manifest, when we consider the responsibility of his vocation, ~~and~~ his general inadequacy to perform, whatever the mere rules of theory dictate, without any coexistent acquaintance with the art, the obscurity of many diseases, the near resemblance which the symptoms of many of them have to one another, their consequent difficult classification, in such a way, as to form a safe and correct diagnosis, and from erroneous and absurd decisions, their necessary liability to the most inconsistent, injudicious, and dangerous treatment. Pathology is then for a branch of Medicine ~~with~~ which they should have minutely

studied and have become generally familiar, during their pupilage, to aid them in clearly investigating and combining symptoms, so as to enable them to determine with certainty the nature and locality of disease. Even the most skilful and experienced pathologists are sometimes mistaken in their diagnosis; what then should not be apprehended from ignorance and inattention to this important department of our science.

It must be evident to every general observer and liberale thinker, that a knowledge of Human Nature is of incalculable advantage, if not indispensable, to every one who would

become useful as eminent in his favorite pursuit; but most particularly to the physician, who has not unfrequently, mountains of preconceived prejudice to surmount, and the door of the most implacable enemies to open, before he can establish his professional claims, and obtain the respect and confidence of the community. In the hands of the dogmatic disciplinarian; it is a weapon more potent in subduing the sturdy foe than all the formidable array of Therapeutical agents, pharmaceutical compounds, and chirurgical instruments; discovered, combined, and invented, since the days of Celsus.

and Hypocrates; the amazing success and wonderful popularity of Thomsonianism, Hydropathy, Homopathy, Eclecticism, and many other empirical systems of modern times, are examples sufficient to validify this statement; when almost always the medicine is a mere nullity, making the therapeutist, the nervous system prevented from sinking, by being buoyed up, and strengthened, under the magnetic influence of inspired hope and faith. The physician, who is perfectly familiar with this branch of human science, is capable of personifying every rank, character, and disposition, from the mendicant to

the power, of metamorphosing himself whenever policy or convenience required it, in order to render all grades of society accessible to him. By it he triumphs over bigotry and hatred, allays the violence of passion, and brings, under his complete dominion, all the vile and malignant dispositions of the human mind; causes joy and gladness, friendship and kindness, to sweetly smile along his pathway; he can even enter, as a welcome visitor, and a messenger of comfort and consolation, into the chambers of the sick, and the modest and virtuous fair receive him as a confidant, and divulge to him their most secret maladies.

But, by what system of -

Legerdemain, what arts of fascination, or what captivating logic can this knowledge furnish him, to make him to approach beings in many respects very dissimilar, dispositions the most heterogeneous, and minds frequently exceedingly eccentric; and upon the throne of friendship and confidence establish an entire self pre-eminency. this I think can be plainly and satisfactorily demonstrated. The student of human nature, during his persevering study and intent observation of the actions and dispositions of mankind, discovers that there are existing in every rational being, certain counteracting agents, which after being refined and-

cultivated, may be applied as effectual specifics in subduing the irritable and strange functions of the mind and in salutary remedies in removing the evil effects and tenaciousness of an obstinate and perverted will. These obstructions being removed from the gate of reason access is easily gained, and perfect submission obtained to the dictates of lawful propriety.

An important accessory of the preceding science, and an efficacious assistant of its ruling precepts and practices, will be found in a general acquaintance, and constant practice of the rules of etiquette, or in other words the physician should be

a well bred person, that is he should possess polished manners to be well skilled in the art of pleasing: they throw around him a fascination irresistably attractive, and shed and increased lustre over all his actions; they express in language more audible and comprehensible than speech, the high degree of man's intellectual and moral attainments, in fact, they are the legitimate offspring of a cultivated intellect, they bespeak a cordial and friendly feeling of the soul, and are strikingly indicative of man's sphere in society, and of his intimate association. It is true politeness that gives that grace, dignity, and humanity, so attractive in many

physician; it induces him to regard as sacred the feelings of those whom, in affliction, his services may require, and to exercise toward them the mildest dispositions of his nature, and to furnish a palliative to every disagreeable performance, absolutely necessary. It teaches him to exercise kindness with decision, modesty with duty, and amenity with every imperative demand.

Since the practice of medicine ranks high among the finest pursuits of mankind, its office so responsible, and its purposes so benevolent and philanthropic, and intimately associating its votaries among the great and the good, it is

therefore a dignified art, and is, consequently, calculated to give dignity of manners to its practitioners, a quality, which if equipoised by good practical sense, properly educated, may be an ornament to his character commanding respect and admiration; but man is frail, and from slight preponderances, liable to lose his equilibrium; as for instance under the intoxicating influence of flattery or fortune, which not unfrequently leads the excited imagination, to magnify his position in society to a godlike one, and his success in healing a supernatural power: but these are not their only baneful results, they are more disguisingly portrayed in his demeanor toward

the poorer and humbler classes of society, their calls for attention are now frequently delayed or unheeded, the rustick mansion or peasant's cot is not, as in days of yore, a favourite resort; his benevolent soul no longer gladdens that gloomy and sorrowful abode, and, with sanatory skill, drives away a ravaging disease, but naught, but haughty contempt and ostentatious pride reciprocate their friendly salutations. That not a few of the members of our profession, have suffered a rapid stream of fortune to carry them, unconciously, into this disgusting and destructive vortex and whirlpool, experienced observation will incontravertably prove.

But consistent with true dignity

and intimately blended with it, another indispensable virtue and shining quality, namely, unassumed and unalloyed modesty should shed her radiant influence over the department of the sons of Æsculapius; that is all their actions should be regulated by the strictest regard for decency and propriety, and under no circumstances, should they allow themselves the privilege of violating this sacred prerogative, by exercising any undue liberties, or intermeddling in matters entirely useless and unnecessary, and when absolutely required to perform, the painful duty of interrogating these patients upon any secret

malady, or of exposing the person to views, let it be done with the mildest delicacy, and the manifestation of a disagreeable necessity.

Sympathy and Kindness, two of the Divine attributes, implanted in the soul of man, present themselves to our consideration as demanding a pre-eminent position in the scale of Christian virtues, and as unerring guides to the physician through the dark labyrinth through which he must necessarily travel. Sympathy is that instinctive feeling which prompts us to feel and pity the sufferings of our fellow mortals. Kindness is a manifest demonstration of the sincerity of the former by feeling into efficient exercise with disinterested

motives, all the agencies which human skill and a healing art can combine and apply towards relieving the pangs of affliction and distress; sympathy mitigates pain by allaying mental disquietude and in preventing or removing its frequent tendencies to despondency; but kindness like the good Samaritan anoints the wound, and tenderly watches its progress, and with unremitting exertion and attention endeavours to promote a favourable result. Many diseases, by a sympathetic influence over the brain, induce a high degree of nervous irritability and mental despondency, which, if suffered to continue, will sometimes terminate in melancholy, hysterics or hypochondriasis

to what is infinitely more to be dread
ed confirmed insanity. Here these
two great moral agents offer them
selves as most invaluable remedies
for preventing such abnormal tendencies, they calm
the nervous system, allay mental
disquietude divert the mind, pre
vent it from dwelling upon real
and oft imaginary evils and inspire
it with cheerful hope.

Were I to enter into a thor
ough investigation of the subject
under consideration for the purpo
se of minutely detailing all
the essential ingredients in the
character of a well bred physi
cian, my dissertation would be
protracted to an immeasurable
extent, and language would be
inadequate to the task. We will
therefore by way of conclusion lay down

general rules which if strictly followed will be a certain guarantee of success and future well being. The young practitioner will find it evidently to his advantage, when not professionally engaged to maintain a permanent locality, that is he should be found at, or in the vicinity of his abode; he should promptly obey the calls of the sick, even at a sacrifice of his personal comfort and domestic happiness. As he is in reality a servant of the profession he becomes a creature of accidents, he should therefore consider no time or season as his own, but as a willing and faithful sentinel he ever found at his post, ready to meet and combat every malignant foe, the inclemency of weather, the sombre shades of night

and the vicissitudes of ~~night~~ temperature should be no obstacle to the efficient discharge of the emergencies devolving upon him. He should also knows no distinction but be ever as ready to serve the poor and impoverishing, as the rich and aristocratic; neither should he oppress and beggar them, to remunerate his services but with a generous and philanthropic soul, magnify and exalt the dignity of his position by exempting them from all pecuniary obligations. When required to treat any serious malady, he should be frequent and punctual in his attendance at the bed side, cautiously watch the progress of the disease, observe every consecutive change and secondary symptom, so as to be prepared

to meet and fulfil if possible every indication, and conduct it to its most favourable termination. I would here suggest, that when the physician approaches a patient for the first time, particularly, if he or she be in a very irritable condition at the time, it would not be prudent to inquire immediately into the history and symptoms of the case, but allay this nervous excitability by conversing for a few moments upon some entirely disconnected subject, by so doing we arrive more nearly at the true nature of the disease. For the symptoms are not so likely to be exaggerated misrepresented, or masked by the peculiar feelings under which the patient may momentarily or habitually labour. Nor should he in these as well as

in other cases, he too precipitate in pronouncing his diagnosis, ~~but~~ lest some subsequent development may entirely change the appearance of the malady, obliges him to withdraws his former decision and substitute one more nearly in accordance with the most recent symptoms. This although apparently a very trivial mistake, yet it may prove exceedingly injurious by conveying an impression to inconsiderate persons of incompetency or incapability of judging correctly. His prognosis should be regulated by the constitution of the patient and the duration and severity of the disease, but it should never be so positive as to preclude the possibility of an honorable escape from every ignorant or unjustifiable censure

An
Inaugural dissertation
on
The Atmosphere
submitted
to the examination
of
The Provost, Regents,
and
Faculty of Physic
of the
University of Maryland
For the degree
of
Doctor of Medicine
By
George Taylor
of
Baltimore
Maryland

The Atmosphere

The atmosphere is a gaseous body which surrounds the earth on all sides. Its height is estimated to be between 45 and 50 miles. This has been ascertained by a calculation founded on the length of twilight, which is said to continue from the moment the sun sets, until it is 18 degrees below the horizon. But as this can only be an approximation, on account of several unavoidable circumstances connected with the observations made for determining the length of twilight, and the very imperfect means we have of tracing its percepti[illegible] of having ceased it and night begins; so must the height of the atmosphere depending upon it, be but an approximation. By this calculation its height is found to be about 48½ miles. This calculation proves the atmosphere capable of reflecting light

from its utmost limits. But may it not, at its greatest distance from the earth, become so rarified, that it shall be no longer able to reflect light to such an extent, that it may be perceptible. It is conceivable that this may be true, which if so, in order, that we may obtain the real height, requires something to be added to the amount found by the calculation, so that we see 50 miles may be safely taken as its height. The atmosphere is a material body. It has weight which is the most certain evidence of the presence of matter. It possesses also elasticity, compressibility, divisibility, porosity and indestructibility. The weight of air is found by the following method. Take a bottom vessel, the capacity of which has been accurately computed, or what is more convenient, one whose capacity is 100 cubic inches, or some other simple number, weigh

the vessel in the ordinary manner, then having exhausted the air by means of an air pump, again weigh the vessel. The loss of weight sustained by the vessel will consequently indicate the weight of the air contained therein. The computation of the weight of air is of great importance, as air has been made the standard by which the specific gravity of any gas is determined. Biot after great labour and care found its weight, when the Barometer stands at 30 inches, with 60° degrees of Fahrenheit's Thermometer, to be 31.01 grains for 100 cubic inches. The number given as the weight of 100 cubic inches of air, means that, which is situated near the surface of the earth, which we intimated by saying that the barometer stood at 30 inches. As we depart from the surface the air becomes rapidly of a much less specific gravity. It has been

made the subject of a calculation, and has been found that, "the density of the air decrease in a geometrical, as the distances from the earth increase in an arithmetical ratio." At the height of 7 miles it has been found that the density is but ½ that at the earth. At 14 miles it is ¼, and at similar heights in a similar proportion. Were the atmosphere of an equal density throughout, it has been estimated that its height would be but 5 miles. This has been found by computing the weight of the entire mass of the atmosphere, after which it is an easy task to see how far it would reach were its density uniformly equal to that which it possesses at the earth. The weight of the entire mass of the atmosphere has been found to be 15 pounds on every square inch. This is proved by the experiment,

which consists in placing a glass tube in a cup of mercury: when the air is exhausted from the tube the mercury will be seen to rise to the height of 30 inches; now if we have taken a regular cylindrical tube, whose base is one inch, we shall find the weight of the column of mercury to be 15 pounds, which will denominate the pressure of the atmosphere on one square inch. Or it may be done by filling with mercury a tube closed at one extremity, whose length is greater than 30 inches, having particular care that it be entirely filled; if this be so filled be immersed in a cup of mercury the column will fall until its height is 30 inches. The height of the column of mercury is not always exactly the same, some difference being made by the state of the weather. In dry weather the column stands high.

than during a damp day. The cause is known to the meteorologists. The atmosphere is possessed of great elasticity. A most familiar experiment which proves this, is the placing of a bladder, from which we have pressed as much air as we can with our hands, under the receiver of an air pump. After having exhausted the air, the bladder will be seen as much distended as if it had been actually blown into. When the air is again admitted into the receiver, the bladder will immediately assume its former lax condition. This property of air has been used to great advantage in the construction of the air-pump and several other more familiar and useful instruments.

The compressibility of the atmosphere has been found to be such, that its density is in an inverse proportion to the com-

[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
who first proved its existence. He succeeded in proving the fact in the following manner. He took a glass tube bent in the form of the letter U, with the two arms of unequal length. The shorter arm being closed at its extremity, the longer arm he then inclined downwards in the manner of a funnel, in consequence of the two arms being so inclined, that in the short one it has much the point at which it stood in the longer arm. He then poured more mercury until the difference of level in the two arms was decreased to a point that which it was in the first instance. He then found the volume of the compressed air to be proportionably less than that which it was in the former case, thus showing the volume to be increased

of the compressing force, for in the first instance we had the superincumbent air pressure 30 inches of mercury [illegible] thus making 2 atmospheres, & then we added 30 inches of mercury or two atmospheres [illegible] we thus doubled the compressing force.

The divisibility of the atmosphere requires no proof, but its infinite divisibility has been doubted, and that it is not infinitely divisible is thought by some to be susceptible of demonstration. It is on this reason they account for the definite limits of the atmosphere. They say that if the [illegible] were infinitely divisible [illegible], and it might extend to some greater degree of rarefaction, but they have [illegible] at the limit of divisibility.

But this does not [illegible] the [illegible] [illegible] of infinite division, [illegible] [illegible] [illegible] gravity

[illegible] incapable of conducing [illegible]
[illegible] cted by some existing force or forces, as the great cold, or to speak more correctly [illegible] in the upper regions of the [illegible], and the attraction of the earth. If it could be proved that air is not infinitely divisible, it would be a good argument in favor of the atomic theory, which is so generally adopted by the [illegible] of [illegible] tar. The density of the atmosphere would be very great as is proved by its elasticity. It is this property which enables it to hold suspended in the form of rain, our such vast quantities of water. The quantity of rain, rapidity of motion, height of clouds, and time is dependant altogether upon temperature. The quantity which can exist at 32° F is only 1/30 of its volume.

[illegible] at 90°, it is capable of containing
as much as [illegible] in this respect
it [illegible]
[illegible] the temperature from 80° to 90°,
than if we raise it from 30° to 40°. The
[illegible]
called Dew. [illegible]
temperature is lowered. As the air con-
tains a much greater quantity of [illegible]
at a high than at a low temperature, so
[illegible]
[illegible]
[illegible] from 90° to 80° than from 50° to 40°.
[illegible]
is called the dew-point. At 70° degrees
the [illegible] may appear perfectly dry, but
by reducing the temperature we will
[illegible]
[illegible]
[illegible]
[illegible] the dew point.

[illegible] ask, why it is not deposited during [illegible] day? Why we are so abundantly sup-[illegible]ied with it on a clear summer night? [illegible] also why cloudy nights are free from it? These questions all admit of [illegible] [illegible] that it is not deposited during the day. We have said that in order that [illegible] would have a deposit of dew, the [illegible]ature must be lowered, we have [illegible] change during the day, if we [illegible] [illegible] perceptible effect, for this [illegible] [illegible] plentifully sup[illegible] night. During a hot summer day [illegible] during 12 or 14 hours, with the ther-[illegible]

evaporates on every side, the vapor
is sometimes carried on so briskly
[illegible]
so a sunny day. This evaporation
[illegible]
is steadily receiving the scorching
[illegible] the sun which it gives out to
surrounding atmosphere. This is
[illegible] manner in which the air is
[illegible]
[illegible] after the sun
[illegible] the Horizon, the
[illegible]
rays from the sun, if it would
[illegible]
it must receive as much heat from
[illegible] as it gives off, but the air is
radiating its heat in every direction,
[illegible]

Thus the earth is continually robbed of its heat by the air, which is in turn robbed of it by space, by this means the air having lost a certain amount of heat is no longer able to retain its moisture, [illegible] deposition of dew results. The [illegible] [illegible] depends upon the fact that [illegible] temperature is preserved by radiation back from the clouds of heat received from the earth. The reason why dew is more abundantly deposited on some bodies than on others, is because some are much better radiators of heat, thus [illegible] and the leaves of plants will be [illegible] with moisture, when a piece of [illegible]

The space beneath a tree is protected from the dew by the radiation of heat from its leaves and branches.

Frost is dew deposited in a frozen con-
[illegible] Frost is deposited when the
night becomes much colder than the
[illegible]eding day, which only happens on
clear night. That frost may be
[illegible]med the thermometer must indi-
[illegible] 32°.

Fog is produced when a cloud
[illegible] comes in contact with another
[illegible] of a lower temperature. The
[illegible] simple and familiar example,
[illegible] of fog, is that produced when
[illegible] expire on a cold day. The [illegible]
[illegible]hang the course of streams, during
[illegible]ing, by which we are enabled
[illegible]times to trace their windings as
[illegible] as the eye can reach. The air in
[illegible] the stream
[illegible]
[illegible]
in its ascent it come in contact

with air of a lower temperature [illegible]
causes the formation of fog. The top of
mountains also present this phenomenon
which is caused by the air in contact
[illegible]
temperature, raised a few degrees
[illegible] at the higher
[illegible] of the atmosphere. When the
temperature of the atmosphere heavily
charged with moisture is suddenly
lowered we have then presented the
phenomenon of Rain. This contin
[illegible] M. Garris [illegible] about
a portion of cold air coming in
[illegible] with a warm motion. When
the difference between the temperatures
of the different portions [illegible]
is very great hail results.
That which we call wind is nothing
more than the atmosphere [illegible]

We say that air cannot be perceived by [illegible] but [illegible] it when in motion. The same [illegible] tion is experienced, when the air is [illegible] tion while we remain still, [illegible] velocity. The great [illegible] which setting in motion [illegible] at a distance for the purpose [illegible] that wind blows so constantly during [illegible] navigators is accounted for in [illegible] all directions. This wind is from North-East, North, North-West in the [illegible] the equator, and from South-East, South, South-West on the South of it.

its direction towards the equator is on account of the greater rarifaction of the air there existing and it would be correct in saying the circumstance that in coming from high northern or southern latitudes the air does not immediately acquire the greater velocity which the rotation of the earth imparts at the equator, the land and water of the torrid zone being the day and the latter being the night, in the morning, and afternoon, a peculiar variation of wind takes place. During the day the land becoming heated in a greater degree by the rays of sun than the sea, on account of its greater capacity for holding rays, draws in the air from the sea, thus causing a wind to blow towards the land, but in the night the land, not being heated, radiates its heat, the sea thus making the point

of greatest rarefaction situated in the
sea, which causes a breeze to succeed
[illegible], which time and talent
have been employed in explaining
the causes of those dreadful
and tornadoes which prove so very
disastrous to some regions of the earth,
in bordering on their coasts of the
West India Islands, but as a repetition
of those explanations would occupy
too much space, I must cap them by
merely observing that they depend upon
the same cause which produces other
winds, attended by some peculiar modifications. The atmosphere on account
of its great rarefaction and its moisture
is said to give out, in the condensation of vapour, great quantities of electricity.
A most useful application is displayed
in the common water-pump. The principle upon which pumps act, is by an

exhausting the air within them,
causing [illegible]
to force up the water. The contrivance
by which the air is withdrawn from
the pump consists of a small
piston, one of the valves is situated
in the body of the piston and a little be-
low which the piston rod is
the [illegible] of the piston.
piston. Both of the valves open in
the same direction as the piston descends.
When the piston is drawn up, the air
resting on the valve keeps it shut and
is carried upon it. The space below
the piston is thus left vacant, in which
the rarefying of the air in the pump
below the pump valve causes it to open
and rush in to fill the exhausted
space. [illegible]
the space below the pump valve is now
occupied by the additional

space between the two valves, which rarifies it to a certain extent, when the weight of the atmosphere prevails in forcing up the water from the bottom of the well. When the piston is forced down, the weight of the water shuts [illegible] and is thus prevented from going back into the well. In forcing up the water, it was impelled by it until it [illegible] with [illegible] and it rose on to [illegible]. By [illegible] the piston the water rests on the valve and keeps it closed and is [illegible] to the spout from which it issues. Pumps were long in use before the principle upon which they depend was understood or even imagined. [illegible] the time of Galileo attempted an explanation [illegible]

satisfied with the dictum that "nature abhors a vacuum". The cup-sucker is the simplest example of the application of the atmosphere to [illegible]. The syringe was constantly employed without one suspecting its modus operandi. Very many [illegible] are in use by which which the atmosphere is used as a mechanical agent. I have already said [illegible] the [illegible] utility in [illegible].

The atmosphere is composed of several substances. Its principle constituents are oxygen and nitrogen. Carbonic acid and water vapour are always sent together with the various matters of fumes, and other [illegible] substances. The atmosphere is [illegible] pure when it is free of every thing but its oxygen and nitrogen.

which are found to present in the proportion of 79.20 parts of nitrogen to 20.80 parts of oxygen by volume or 77.2 of nitrogen to 23 of oxygen by weight, or which is the same, four equivalents of nitrogen to one of oxygen. The atmosphere is never to be found therefore, unless it is generated by artificial means, carbonic acid may always be found, varied at its minimum 2.7 parts, and at its maximum 6.2 parts in 1000. It is found to be present in a greater proportion during the night than during the day. This is owing to the circumstance that during the night it is given off by plants, but is absorbed by them during the day. It is now generally believed that the oxygen and nitrogen of the atmosphere exist in an uncombined state being merely mixed together. The principal chemical phenomena presented by the

atmosphere depend upon the presence of oxygen. It is fit to be breathed, but from the atmosphere composed of nothing but oxygen we would be unable to live in it, for it is a fact often proved on the inferior animals that pure oxygen is not sufficient to sustain life. Before it can be used for this purpose it must be diluted to a considerable extent. The nitrogen of the atmosphere is of little power except for the dilution of the oxygen. When oxygen is withdrawn from a portion of air it is not longer fit for the purposes of respiration, and it is so when its place is supplied by carbonic acid gas. The substitution of carbonic acid gas for oxygen takes place when a charcoal fire is caused to burn for a sufficient time in a closed apartment. This has been a very prolific cause of death. The substitution of many

[illegible] known [illegible] [illegible]
deleterious than carbonic acid, [illegible]
Sulph-hydric acid, cyanogen &c.
Combustion is now known to be caused
on through the influence of oxygen.
This has been often proved by direct
experiment. Before this fact was known
combustion was supposed to depend upon
the presence of an imaginary substance
termed Phlogiston which was said to
exist in all inflammables and to be
wanting in all incombustible bodies.
When hydrogen was discovered it was
thought that the true Phlogiston was
obtained in an isolated state. This union
arose from the very inflammatory
nature of hydrogen. The discovery of
oxygen has done away with this con-
fusion and settled the true theory of
combustion. In pure oxygen substances
which otherwise appeared to be in-

combustible burn with readiness. In it iron is consumed with the emission of brilliant scintillations. Even the diamond, the hardest substance in nature, burns when immersed in oxygen gas. The compound blow pipe before the flame of which the most infusible substances are made to melt, consists of a jet of hydrogen supplied with pure oxygen. At the discovery of oxygen it was thought to be the only substance capable of sustaining combustion, but this is not true. Copper, tin, antimony and several other metals in the form of a powder ignite spontaneously in chlorine gas, which cannot be said of oxygen.

The oxydation of the oxydizable metals may be termed a slow combustion. The knowledge of which metals are the most easily oxydized is of great practical importance in the arts. By means of this knowledge we are enabled to protect those metals which are most liable to be oxydized by a coating of

[illegible] for this purpose [illegible] [illegible] [illegible] [illegible] from Nomenclature the chemical [illegible] [illegible] [illegible] of nature of the presence of the oxygen of the atmosphere to [illegible] which [illegible] be [illegible] [illegible] [illegible] said [illegible] [illegible] idea of its importance. Concerning the use of the nitrogen of the atmosphere little definite is known, save that it is a diluent for the oxygen.

Much of late years has been said and written upon the atmosphere as a medium through which diseases are propagated. This subject in my opinion properly belongs within the provinces of Malaria, Infection, and Contagion, and should be treated of in considering these subjects.

George Taylor

An
Inaugural Dissertation
on the
Poisonous effects of Arsenious acid
Subjected to the examination of the
Provost, Regents, & Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Edward W Mumma
Maryland

Arsenic, the basis of all arsenical preparations is a peculiar hard and brittle metal of a steel grey colour, presenting when freshly fractured a shining brilliant appearance, but on being exposed to the influence of the atmosphere it becomes dull and black. It sometimes occurs in the pure metalic state, but more frequently in combination with the natural arseniurets of Iron, Copper, Nickel and Cobalt. Its texture is granular and sometimes scaly; It has no taste but an odour resembling that of garlic. Its sp. Gr 5.7 when heated to 350° Fahr. it sublimes without fusing giving rise to a vapour having the peculiar odour of the metal. Its equiv 37.7

In its pure metalic state it does not affect the animal economy, but combined with a certain amount of oxygen it forms Arsenious acid or white

oxide of arsenic of the shops the most active mineral poison with which we are acquainted. It is composed of two proportions of arsenic and three of oxygen. $As_2 O_3$. equiv 99.4

This oxyde of arsenic is obtained chiefly in Bohemia and Saxony, where it is procured in large quantities as a colateral product during the smelting of cobalt ores, which generally contain it in considerable quantities; during the roasting of these ores, Arsenious acid rises in the form of vapour and is condensed on the sides of the flues, which is afterwards purified, and thrown into commerce in large masses, perfectly transparent at first, but being exposed to the atmosphere it becomes opaque and white resembling lumps of chalk. According to the U. S. pharmacopoeia it should be kept in these masses, on account of its liability to be adulterated when in powder

Arsenious acid - occurs in the shops for medical use in the form of a white powder nearly as fine as flour. In which form it is generally administered as a poison; when thus administered it acts with great violence, and commonly destroys life in a very short time; acting in various ways sometimes producing symptoms denoting inflammation of the alimentary canal, and at others apparently directly on the nervous system.

Symptoms, - An austere taste; foetid state of the mouth; frequently ptyalism; continual hawking; constriction of the pharynx and oesophagus; the sensation of the teeth being on edge; hickups, nausea, anxiety, frequent sinkings; burning pain at the praecordia; inflamation of the lips, tongue, palate, throat, oesophagus; irritable stomach, so as not to be able to support the blandest drinks

vomiting of matter, sometimes brown, and at other times bloody; black and horribly fetid stools; small, frequent, contracted, and irregular pulse, but occasionly slow and unequal; palpitations; syncope; insatiable thirst; burning heat over the whole body, or a sensation of icy coldness; difficult respiration; cold sweats; scanty, red and bloody urine; change in the countenance; a livid circle around the eyelids; swelling and itching of the body; livid spots over the surface, and occasionly a miliary eruption; prostration of strength; loss of feeling especially in the feet and hands; delirium; convulsions, often accompanied with insupportable priapism; falling off of the nails; detachment of the cuticle; &c. Sometimes there exist inflamation and burning pain in the urinary and genital organs.

All these symptoms rarely occur in the same individual. Indeed in some cases they are nearly all wanting, death taking place without any pain or prominent symptom. The average time for these symptoms to appear is from a half an hour to an hour. They have been known to appear in a quarter of hour, and even less than this time Dr. Christison relates a case in which they commenced in eight minutes. On the other hand cases are on record where they did not appear for four or five hours. Dr Christison thinks that they may be retarded by sleep.

Post-mortem Appearances—The morbid appearances met with, are those which indicate inflammation of the alimentary canal; namely, redness of the throat and gullet, redness of the villous and peritoneal coats of the stomach, black-

ness of its villous coat from extravasation of blood into it, softness of the villous coat, ulceration of that as well as all other coats; effusion of coagulable lymph on the inner surface of the stomach extravasation of blood among its contents; finally redness and ulceration of the duodenum and other parts of the intestinal canal, and more particularly the rectum.

There have been various opinions entertained, as to the manner, in which this acid produced its deleterious effects upon the animal economy. It is the general opinion of Toxicologists, that the effects are principally upon the villous coat of the intestinal canal and stomach, causing inflammation and ulceration of these parts. This opinion in a majority of cases is doubtless correct, judging from the appear

ances on dissection and the corrosive quality of this substance; yet this mode of action seems to be rejected by Mr Brodie who from the result of various experiments performed by him came to the conclusion, and in many instances I think justly, that it did not produce its deleterious effects in this manner but that it extend the circulation, through the medium of which it produced its effects by acting directly upon the nervous system, the organs of circulation and the alimentary canal; and that death depended immediately on a suspension of the functions of the brain and heart. This seems to have been Orfila's opinion also.

Dr George F. Jaeger of Stutgard seems to have been opposed to both the general idea and of Mr Brodie also, and from various experiments

of his own, on organized bodies, adduces a number of strong arguments to prove that it does not produce its deleterious effects in either of the last mentioned manners; but in a similar manner to the poison of the viper, which acts principally on the blood.

It does not only produce these deleterious effects when taken directly into the stomach but also applied to the surface of the body either broken or unbroken; as proved by an experiment performed by Spraegel, who sprinkled a drachm of Arsenious acid, into a recent wound on a dog's back, who died at the end of five hours (Ebel Thera) It is a remarkable fact that when thus taken into the system it often produces nearly the same organic effects on the alimentary canal, as when taken internally.

In the experiment just mentioned, says Dr Eberle, the stomach and intestines were greatly inflamed, both on their exterior and interior surface; coagulated blood was effused into their cavities; and had insinuated itself between their coats. The pleura, pericardium, and lungs appeared very much inflamed. I have not the slightest doubt that many persons lose their lives by the injudicious employment of this poison as an escarotic, by producing inflamation of the alimentary canal, judging from the experiment of Dr Saeger and one mentioned by Mr Taylor when it was applied to the unbroken surface namely of a man who covered his head with powdered arsenic to act as a depilatory. He was affected with the usual symptoms of poisoning by arsenic except diarrhoea,

and died on the twentieth day; the intestinal canal, particularly the interior of his stomach and lower part of the oesophagus was inflamed generally.

Dr Christison has divided the poisonous effects of Arsenious acid into three orders of cases. In the first the poison produces symptoms of irritation and inflammation along the alimentary canal, and commonly kills in from one to three days. In the second, the signs of inflammation are moderate or even altogether wanting and occurs in five or six hours, at a period too short for inflammation to always be developed. In the third order of cases, two stages occur one in which inflammatory symptoms are developed, as in the first order; the other marked by symptoms referable to nervous irritation, such as imperfect palsy

of the arms and legs, epilepsy, tetanus, hysterical affections, mania, and coma.

Treatment— In the absence of the acknowledged antidote for arsenic, the peroxyde of Iron, and during the time it is being obtained, attempts should be made as quickly as possible to dislodge the poison by free vomiting, induced either by the finger the feather end of a quill or the administration of an emetic of sulphate of copper, or sulphate of zinc; the effects of the emetics may be promoted by mucilaginous drinks; when the above mentioned sulphates are not at hand, Mr Taylor directs as a substitute powdered mustard in proportions of one or two teaspoonfuls to a glass of water administered at intervals. He also recommends a liquid made of equal parts of oil and lime water, and thinks that lime may have some power as an antidote, although

he places but little confidence in chemical antidotes when the poison has been taken in the form of a coarse powder, as is usually the case. The stomach pump may also be used, by either introducing the tube through the mouth or nostril, the latter being preferable as the patient is apt, when it is introduced through the mouth, to bite the ~~the~~ tube and swallowing a portion of it. Demulcent drinks should at the same time be freely given, such as milk, this says Dr Christison seems to be the best substance for enveloping the powder, and so procuring its discharge, therefore he directs that it should be taken both before and after vomiting has begun; white of eggs and water, or flour and water which serve to encourage the vomiting and envelope the poison.
A mixture of milk, lime water and albumen is highly recommended by Mr Tubbs. The antidotes formerly recommended for this poison

are at this time generally abandoned as useless. The sulphuret of potash, or liver of sulphur retained its place as an antidote for some time, but the late researches of Orfila have shown that the arsenical sulphuret, formed by solutions of the liver of sulphur is nearly as dangerous as the oxyde of arsenic itself

The antidote to which I had reference on a foregoing page is the hydrated peroxide of iron, and which is the one mostly relied on for this poison, much evidence has been brought forward in favour of its efficacy. It is to be used in the moist or pulpy state as soon as possible after the poison has been swallowed, in doses of a tablespoonful to an adult and a dessertspoonful to a child, every five minutes until the urgent symptoms are relieved. It has been supposed that ten grains of the dry oxide poi-

capitated one part of arsenious acid in solution, that after its action not a trace of the poison can be detected even by Marsh's test.

The antidote acts by producing with the poison by a transfer of oxygen from the oxyde to the a sub arsenite of protoxide of iron ($4FeO, As_2O_3$) which being insoluble is therefore inert.

The profession was ignorant of the antidotal power in cases of poison by arsenical preparations of this oxide of iron until 1834 when it was discovered by Drs Bunsen and Berthold of Gottingen, since which time its efficacy has been abundantly confirmed, by experiments on lower animals, and also by its successful applications in cases of poisoning in the human subject.

The following is a simple and easy mode of preparing the antidote recommended in Dr Bell's

Materia Medica, dissolve sulphate of iron in water, with a little sulphuric acid, adding nitric acid till the solution is fully oxygenated; then precipitate the hydrated sesquioxide by excess of ammonia.

The product is of a deep-reddish-brown which should be carefully washed with boiling water until most of the sulphate of ammonia is dissolved, then dried cautiously at 180°F.; it still retains, says he, 18 per cent of water, and a small portion of ammonia, which last may be driven off by exposure to heat.

Another, is the directions given for its preparation in Dunglisons New Remedies, take of sulphuric acid ℥8 or 16 parts; of iron wire ℥8 or 16 parts, of nitric acid ℥5½ or 11 parts; of water of ammonia a sufficient quantity; water 1½ gallons or 384 parts. Mix the

the sulphuric acid with the water in a glass vessel, then add the iron, and after the effervescence has ceased, filter; add the nitric acid in divided portions and apply heat so long as orange-coloured fumes are given off. To the heated solution pour in the water of ammonia, untill a decided excess has been added, then wash the precipitate by decantation until the washings give no precipitate with nitrate of baryta; the water is then to be drawn off until just enough to give the consistence of thick cream. It should be then put up in half pint bottles; to each bottle add two ounces of uncrystalizeable sugar, or honey, to prevent the oxyde from separating from the water; the bottle should be shaken before each dose.

If the poison has been taken in the form of Fowler's solution lime water in copious draughts may be given.

Magnesia has been proposed as an antidote also in cases of poisoning by arsenious acid by Bussy in

the form of calcined or a recently precipitated gelatinous magnesia. The dense kind having but little efficacy.

After the poison has been evacuated or neutralized, two indications remain to be fulfilled, namely, first to subdue the inflammation of the alimentary canal, and secondly, to sustain the system by mild nutriment.

To meet the first indication blood letting, has been practised to some success, but as it promotes absorption it cannot be practised until the stomach has been thoroughly evacuated. And when blood-letting is employed it cannot be carried as far as in gastritis of an ordinary character. Leeches may be applied to the epigastrium. Mucilaginous drinks should be freely given; and in the course of the treatment emolient enemata, antispasmodics, and narcotics, will often be beneficial in mitigating pain and allaying nervous irritation.

convalescence is generally long and distressing, and hence it is of the greatest importance to attend to the diet which, should consist chiefly of milk, gruel, cream, rice, and similar bland articles.

Reagents for detecting Arsenious acid. Before applying the tests for arsenious acid, the following directions given by Dr Christison for the purpose of freeing the suspected substance of organic matters should be observed; otherwise the tests will not show the characteristic precipitate. Boil the suspected matter with distilled water for half an hour and filter, first through gauze to separate the coarser particles and afterwards through paper. To the transparent solution thus obtained add acetic acid which will coagulate some animal principles. To ascertain wether the solution, wether the solution has been sufficiently

deprived of animal matter by this measure, neutralize with ammonia, and test a small portion of it with the ammoniacal nitrate of silver. If this gives a characteristic precipitate the solution is sufficiently deprived of animal matter; if not another measure must be adopted to separate it. This consists in first rendering the solution neutral or slightly alkaline, next faintly acidulating with muriatic acid and then adding an excess of nitrate of silver. This salt precipitates the animal matter in combination with oxyde of silver. After this step the excess of silver is thrown down by a slight excess of chloride of sodium, and the solution filtered.

To a portion of the solution thus obtained, apply ammonio-nitrate of silver, prepared by dissolving one part of nitrate of silver in ten of water; and

gradually adding liquid ammonia till the precipitate which first falls is nearly redissolved, after which the clear solution is poured off. If arsenic be present in the solution thus tested a characteristic precipitate of a lemon yellow colour, and consisting of arsenite of silver will be the result. Should an excess of acid or ammonia be present the result will be void.

To a second part of the suspected ~~matter~~ liquor apply ammonio-sulphate of copper, prepared by dissolving one part of sulphate of copper in eight of water and adding liquid ammonia until the precipitate is almost redissolved; the clear solution of which gives a light green precipitate consisting of arsenite of copper. The sulphate of ammonia remaining in solution, care should be taken to avoid an excess of acids and bases, as well as the neutral

salts of ammonia.

To a third portion apply sulphureted hydrogen prepared by the action of dilute sulphuric acid on protosulphuret of iron. This when passed through a weak aqueous solution of arsenious acid throws down a yellowish cloud of sulphuret of arsenic; an excess of alkali interferes with or prevents the effect; an excess of acid also should be avoided lest sulphur be thrown down. When the solution of arsenious acid is very dilute, a slight yellow tint will appear; but no precipitate will be formed until the excess of sulphureted hydrogen has been expelled by boiling.

Should the suspected liquid show the characteristic precipitate with either of the tests simply, it does not follow necessarily that arsenic is contained therein; should it show the precipitate

with each and all of the tests, although doubt may still exist in the mind of the chemist, (on account of the great responsibility of his situation probably) still their compounding testimony favours the strongest presumptive evidence of the existence of arsenious acid. To satisfy the mind still farther, and to render justice more certain it will be proper to reduce each of these precipitates to the metalic state, and subsequently to that of arsenious acid itself. This may be accomplished in the following manner.

Place either of the precipitates properly dried and prepared in a small clear test tube (of german glass) and place upon it a small quantity of charcoal black flux, or a mixture of charcoal and carbonate of soda. Heat is now to be gradually and cautiously applied, when the metal will be deposited

in the upper part of the tube. Repeat this experiment with each of the precipitates when if arsenic be present they will give the same result. The metal may now be oxydized by the further application of heat and arsenious acid will be christalized on the sides of the tube above. Another very important test is that of Mr Marsh. The aparatus for applying the test consists of a wide mouth bottle of six or eight ounces capacity; in which is to be inserted two glass tubes through a cork one of which, is for the ~~xx~~ purpose of conveying, the suspected fluid to the bottom of the vessel; which for convenience should be of a funnel shape; the other for the purpose of allowing the gas to escape should be of hard german glass. In the vessel should be placed a few fragments of zinc to which should be added a little dilute sulphu-

ric acid, consisting of one part of strong acid to six or eight of water. When hydrogen has been coming off about five minutes apply a flame to the gas as it issues from the tube. In order to test ~~a portion~~ the purity of said gas, in the flame should be held a clean porcelain crucible lid, on which, if arsenic be present, there will be a more or less distinct stain produced; if the materials thus far be found pure, the suspected fluid should be introduced, the flame again applied and a clean porcelain lid held in the flame; now, if arsenic be present, dark spots of the metal will be deposited on the surface of the lid wherever it has been allowed to enter the flame. As antimony produces similar stains it is necessary in order to prove them to be arsenic or antimony, to subject them to following tests, viz. First apply the flame of the spirit lamp to one

of them; if arsenic it will readily volatilize, perhaps give rise to a garlic like odour.
Second, moisten one of the spots with hydrosulphate of ammonia containing an excess of sulphur; if arsenic, it will remain undissolved for some time; but if antimony, it will be readily dissolved. Thirdly, add to a third spot a drop or two of a solution of chloride of lime, if arsenic, it will immediately dissolve.

In order to further prove whether arsenic or antimony be present a short wide test tube should be held over the flame to collect the fumes of arsenious acid. The arsenical crystals thus obtained may be readily dissolved in hot water. This solution should be tested by sulphuretted hydrogen, ammonio-sulphate of copper, and ammonio-nitrate of silver, as described on pages (20. 21). On the other contra-

ry if the sublimate formed in the tube be antimony it would be perfectly insolluble.

In order to procure the metallic ring, the flame of a spirit lamp, should be applied midway between the vessel and the jet extremity of the crooked tube, when it will be formed at a short distance from the point thus heated. If the tube be then disconnected from the bottle and the arsenic volatilized in it while filled with atmospheric air the metal will gradually become oxidized and converted into arsenious acid, crystals of which will be seen in the cool part of the tube.

Reinsch's test is also very good. – It consists in acidifying a small quantity of the suspected solution, with a few drops of pure hydrochloric acid, and boiling in it a few strips of clear copper foil. The presence of arsenic will be known

by a metalic deposit on the surface of the copper, and may be proved in the following manner. Dry the copper strips by gentle pressure between folds of filtering paper, or over a water bath; when dry place them in a small clean and dry tube of German glass, closed at one end, and apply the heat of a blowpipe. The arsenic will volatilize; and become oxidized while in contact with the atmosphere forming arsenious acid in crystals which may be examined with a lens, The product thus obtained should be dissolved in a little hot water, and subjected to the three tests described on pages (20. 21.)

Detection of Arsenious acid in liquids containing organic matters, - When the suspected fluid is tolerably clear, and unmixed with solid substances, it should be acidified with

pure hydrochloric acid, (prepared by boiling a little of the diluted acid with strips of copper and then proceeding as when testing for arsenic by Reinsch's test,) and boiled with two or three strips of copper foil or wire gauze. After boiling for a few minutes, if arsenic be present probably it may be deposited; but if no traces of it can be observed at this time it is no evidence that the solution does not contain it; but should be allowed to boil for half an hour or even a longer time. When if no stain is produced which indicates the presence of arsenic, it may with safety be concluded that not a trace of arsenic is present. If it happens that any of the fatty animal matter should be deposited on the surface of the copper during boiling, they should be boiled with either a little ether or alcohol,

in order to dissolve it, before exposing it to heat in the tube. The copper strips should be placed in a clean tube, and the accompanying arsenic, sublimed by heat, the crystals condensed on the sides of the tube will be arsenious acid. If the crystals present the characteristic forms when examined with the lens then arsenic is undoubtedly present. It is however necessary in testing in cases of medico-legal investigations to avoid error, to have a combined testimony of other experiments. The product of the last experiment should be removed from the glass by means of a clean knife and divided into three portions; One of those portions is to be tested with black flux in a small tube placed in the flame of a spirit lamp. If arsenic be present the characteristic metallic ring will

be formed in the cool part of the tube.

A second portion is to be dissolved in a little water, acidified with hydrochloric acid, and subjected to Marsh's test.

The third and last portion is to be dissolved in hot water, which solution is to be divided into three parts which are to be tested respectively with ammonio-nitrate of silver, ammonio-sulphate of copper, and sulphuretted hydrogen, as described on pages (20. 21)

Detection of Arsenic in organic mixtures containing both liquid and solid matters; such as the contents of the stomach, vomited matters, &c. When the liquid and solid portions can be separated it is better to test them separately; but when they cannot, they should be tested together.

<u>Examination of the liquid portion</u> The clear

liquor must be acidified with a little pure hydrochloric acid, and boiled with a few strips of copper, which are afterwards to be dried between folds of filtering paper, then placed in a dry tube; heat being applied and the sublimate, if any, examined in the manner before described.

Examination of the solid portion, - This is to be examined for any small lumps of arsenic adhering to the coats of the stomach. If any be found they should be carefully picked out, and sublimed in a glass tube, a solution should then be made, and parts of it successively tested with ammonio-nitrate of silver, ammonio-sulphate of copper, and sulphuretted hydrogen as before described. The solid or semi-solid organic matters is then to be boiled with dilute

hydrochloric acid containing one tenth of strong acid, which will dissolve any arsenious acid that may be present. The solution is to be filtered, and boiled with strips of copper, which are to be dried and examined as in a foregoing test.

When the organic substance is viscid and incapable of being separated it may be boiled with a little hydrochloric acid, and well strained after which some copper strips are to be added and to be subsequently examined as before.

<u>Detection in animal matters.</u> - When the suspected matter consists of fat or oil, in which arsenious acid is sollable to some extent, it should be boiled with dilute hydrochloric acid consisting of one tenth of the strong acid, thus the arsenic is dissolved and the solution may be separated from the fat or oil by filtering

through a piece of previously moistened filtering paper, this solution is then to be boiled with strips of copper which are afterwards to be treated as before stated.

Detection of Arsenic in the tissues, -
In medico-legal investigations, as to the presence of arsenic, in case none can be detected in the stomach it is absolutely necessary to test the various tissues of the body, as it is absorbed into the circulation when taken into the stomach, and thus diffused through the whole system, and may be found in the blood, serum, muscles, and viscera especially the liver. Therefore it is advisable to examine each of them for the poison, and it should never be concluded that where it cannot be detected in the stomach, and its contents, none is

to found elsewhere in the body. Should the patient survive for several days after taking the poison, it is possible that the whole of it might be eliminated from the body; in which no trace of it will afterwards be found.

The portion of the body to be examined should be sliced, and boiled for an hour or two in dilute sulphuric acid consisting of one tenth of strong acid; the mixture is then to be filtered through fine muslin, the clear liquid thus obtained is to be evaporated to half its quantity, by a gentle heat. The solution is then to be boiled with strips of copper foil, which are to be treated as before described.

Finis

An

Inaugural Essay

on

Rheumatism

Respectfully Submitted

To the

Provost, Regents

and

Medical Faculty

of the

University of Maryland

For the Degree of

Doctor of Medicine

By

William Thomas Montgomery

of

Maryland

February 1851

The character and symptoms of rheumatism as assigned by most medical writers are fever, pain about the joints, following the track of the large muscles, attacking the large articulations in preference to the small ones; attended with increased heat. This disease is generally divided into acute and chronic. The acute is attended with a high degree of inflamation, and consequently fever, while the chronic is attended with but little inflamation, or fever. The spring and autumn are the seasons in which this disease is most prevalent and those persons are most liable to it who are subject to alternations of heat and cold. There is some resemblance between acute rheumatism and

gout, it does not come on so sud-
-denly as gout, neither is it so
permanently fixed to any particular
part but is attended with frequent
wanderings from place to place,
accompanied by a sense of numbness.

Acute rheumatism is generally
attended with a continued fever
whereas the gout has periodical re-
-missions and rheumatism like most
of the pyrexia is preceded by rigors
and a sense of cold, followed
by heat, thirst, anxiety, and a
hard, full pulse, the veins near
the part affected swell and a
throbbing pain is felt in the
arteries. Rheumatism however
is not attended with dyspeptic
symptoms as is usually the
case in gout, neither do chalky
concretions form about the finger joints.

Causes.

Obstructed perspiration occasioned either by wearing wet clothes, lying in damp linnen, on the ground, or in damp rooms, or by the body being exposed to cool air while highly heated. Those persons affected with this disease are generally able to foretell the approach of wet weather by wandering pains felt in all parts of the body. In fact some are living barometers. The proximate Cause is supposed to be inflamation of the membranes, and tendinous aponeuroses of the muscles, but there must be something more than Cold to produce this form of disease, There must be a Rheumatic diathesis, in what this diathesis Consists has ———

never [illegible] discovered. There is no sign by which it [illegible] can be detected to a certainty. Large-jointed, and [illegible] are probably more frequently attacked than those of an opposite conformation.

Acute Rheumatism

Acute rheumatism generally commences with lassitude, and rigors, followed by heat, thirst and a hard full pulse. blood when drawn presents the buffy coat, The tongue preserves a steady whiteness, in a short time excruciating pains are felt in different parts of the body especially in the joints, shoulders, knees, and ankles, leaving a redness and swelling in the parts, which is exceedingly sensitive to pressure; towards the close of the day and at night, there is usually an exacerbation of fever, the pain becomes more severe and shifts from joint to joint.

In no disease do we meet with such remarkable instances of metastasis, and no muscular structure is exempt from the pain, the diaphragm, and heart, are sometimes affected by metastasis. According to Jacob and other eminent observers, in one half of the cases of acute rheumatism, there is organic disease of the heart, produced by attacking that organ, the head is not often affected, neither the stomach, but the bowels, are liable to be constipated.

At the commencement of the disease some degree of sweating usually takes place, but it seldom removes the pain or proves either salutary or critical, and it is somewhat singular that the pained limb remains hot and dry, while on the body there is a profuse diaphoresis.

During the first stage of the disease the urine remains unchanged, but as it progresses there is considerable diminution

of fever, a lateritious sediment is deposited without however proving critical.

Chronic Rheumatism is attended with pain in heal, knees, shoulders, and other large articulations, which at times is confined to one place and at others shift from joint to joint, without ever giving any degree of inflammation or fever and in this manner the disease creates leaving the part affected in a debilitated state, liable again to be diseased by any exciting cause. But little danger is attended on Chronic Rheumatism although a person once attacked, is subject to frequent returns of it, and permanent anchylosis sometimes occurs in consequence of frequent relapses. Neither is acute Rheumatic fever accompanied with much danger, unless a metastasis takes place to some vital organ, then fatal results generally supervene. Although

the acute form is accompanied with con-
-siderable inflammation and fever it has sel-
-dom been known to terminate in suppura-
-tion, but a serous or gelatinous effusion
sometimes takes place.

Prognosis

A moderate and not unnatural perspira-
-tion, and a lateritious deposit in the urine,
are symptoms, of a favourable termination
But if the inflammation becomes, a dark
red or erysipelatous hue, with metastasis to
some vital organ, the prognosis is grave.

Anatomical Character

The blood contains a large proportion
of fibrin, after death the synovial membranes,
have been found thickened and injected, their
fluid increased without any material alteration
in some rare instances, however pus, has been found
in the joints and also false membrane, the fibro-
-cartilages, have been found eroded and softened
the muscles diseased have presented a dark red

appearance with softening and effusion of bloody serum into their interstitial cellular tissues signs of inflamation have been observed in the lining membrane of the arteries. The inflamation of internal organs as a consequence of this disease present the same effects as when produced by other circumstances.

Treatment of Acute Rheumatism

The first thing is to obviate the general inflamation which prevails, this is to be effected by pursuing a strictly antiphlogistic regimen and by blood letting in all cases where the vascular action is strong the constitution sthenic and the heat considerable, proportioning the quantity to be abstracted according to the violence of the attack, age, strength and habits of the patients. If the bleeding is well borne it may be repeat=ed with benefit, but in weak irratable persons in whom there is no high degree of inflamation or fever, the inflamation being principally local topical bleeding, by means of cups and leeches will

be preferable to general bloodletting. It is never proper to bleed for pain alone, for it is often of a violent nature unaccompanied with much inflamation, and sometimes after copious de-pletion the disease has been transferred to the heart producing fatal results. Dr Thomas of Salisbury England recommends the Tinc of digitalis in ten and twenty drop doses every four, or six hours after one or two general bleedings, so as to keep up the sedative effects of blood-letting, purgatives, perhaps are of as much avail as bleeding, the purgative should be active but not drastic, such as senna & Magnesia, or Magnesia in combination with wine of Colchicum If there is torpor, or congestion, of the liver, Calomel, alone or in combination are generally suitable articles to begin with. Refrigerant diaphoretics, are of considerable importance in the early and most inflamatory stage of the disease. of these Tartar-emetic, in the dose of one sixth or one twelfth, of a grain in combination

with five or ten grains of nitrate of potash dissolved in water, Calomel should be employed with a view to its alterative effects, it may be carried so as slightly to affect the gums, wine of Colchicum, in combination with doses powder, or some of the salts of Morphia, are highly efficacious remedies. Phosphate of Ammonia has been recommended by Thomas H Buckle of this City, He considered that Rheumatism was produced by the blood holding in solution two salts, the urates of lime, and of soda, and that the Phosphate of Ammonia uniting with them would give rise to soluble salts, the urate of ammonia, and phosphate of soda and lime, occasionally in the course of the disease an adynamic state of the system comes on, attended with copious sweating during sleep, and sometimes considerable disturbance of the nervous system, In such cases sulphate of Quinia, will rarely fail to effect a cure, or if the disease assumes a periodical form sulphate of Quinine from its known antiperiodical powers should be used, Where

there is great prostration of the powers of life it may be proper to administer Carbonate of Ammonia or other stimulants. In the course of the disease should the heart or brain become affected, depletion by the lancet should be carried as far as possible. Cups & leeches freely used followed by a large blister over the parts. Calomel freely used so as to produce speedy ptyalism, the disease be invited back to its original seat by means of Sinapisms or other active Rubefacients.

When the disease occurs in miasmatic districts Calomel should be freely employed and when an intermission or decided remission occurs Quinine should be employed, But very little benefit is derived from local applications. But if the disease threatens to become chronic clap the affected part in flannels if it is not disagreeable to the patient, the repeated application of blisters has sometimes afforded relief, if the pain is severe. Sprinkle the sulphate of Morphia over the denuded surface

Treatment of Chronic Rheumatism.

General bleeding is scarcely ever requisite. Mercury carried so as to make a decided impression on the system will generally affect a cure, purgatives are of much benefit, and if during their use there is much pain, give doses of powder every night. Much benefit will often be derived from those remedies which exert an alterative influence over the disease, as wine of Colchicum three or four times a day in doses within the nauseating or purging point. I have seen great advantage from an infusion of poke berries given in doses of a wine glass full three times daily. Iodide of potassium is an invaluable remedy. Specially if the disease is suspected to be of syphilitic origin. When the disease assumes a painful and somewhat neuralgic character, some of the preparations of belladonna, stramonium, or aconite, will often afford relief. Hot baths, sea bathing, or a long journey, or removing to a warm climate

will often prove salutary. Local remedies occasionally cupping or leeching, and where the disease is permanently fixed to one part repeated application of blisters are superior to all other remedies, In mild cases anodyne liniments may be of some service
In cases of paralysis produced from rheumatism benefit generally arises from blisters and sprinkling the denuded surface with strychnine or the application of heated substances, or galvanism. Accupuncture will sometimes make a cure when all other remedies are totally inert

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[illegible]

[illegible] intelligence [illegible]

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[illegible]

[illegible] and quack medicine

Gourley's bitters are "bought and sold" on an extensive scale. This [illegible] often suffers from irregularities [illegible] and it is [illegible] that [illegible] the [illegible]

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[illegible]

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and given at their [illegible],

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[illegible]

his opinion. Although he consider-
ed that of Lamarck superior to it

[illegible]

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[illegible] efficiency with the

[illegible]

of importance in the body.

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explain how it is that disease

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[illegible]

the variations [illegible]

the various febrile [illegible]

induced in with [illegible]?

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[illegible] sacred [illegible] cause gastric
[illegible] and the exanthema

[illegible]

[illegible]

[illegible]

[illegible] the stomach is disordered.
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[illegible] to detect any change in the
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[illegible] morbid action. This is of
[illegible]
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[illegible] as if there was [illegible]
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[illegible] from inflammation of
[illegible] stomach. His patient lies

he knows not only how to detect
after examination, disease
of stomach to be injected and
[illegible]
often does the stomach
participate in disease, that I have
come to the conclusion, to treat
disorder of the stomach!
[illegible]
[illegible]
[illegible]

Connellsville.
Maryland.

An Inaugural Dissertation on Opium.

Submitted to the examination of the Provost, Regents and Faculty of Physic of the University of Maryland by

Cornelius W. Forney of Maryland.

The time has at length arrived, in which I am to appear before you for my degree. A period, to which I had anticipated having with pleasure come while mingling over the remains of not a few of my fellow beings in the Anatomical Theatre of this school

Whilst, upon the other hand I am sometimes constrained to look back with the apprehension of self distrust, and doubt when I take into consideration the success and failure of others

Notwithstanding all this I shall not stop as it were in the midst of the fight, to ascertain the number slain and be exploured myself. but will grasp with salient heart its triumph, that I may be accepted and crowned for my exertions

In writing this essay which necessitates compels me I am obliged to confess that it does not belong to one of my years or humble

attainments to aim at anything perfect or original, I shall be obliged to offer you in the consideration of this matter a few detached or loose pieces of information imparted upon one of the most sublime subdivisions pertaining to the practice of medicine. In the wide range of twenty centuries which history claims as her own, we may notice the labours of great and distinguished theorists both in Europe and America or where ever civilization has been cultivated, their opinions rising and falling like waves on the ocean one giving way to another.

Thus we see like a ladder has arrived step by step thus we see from the earliest period to the present day step after step being added by this one and that one among whom may be mentioned Sydenham Cullen Harvey Haller and others no less distinguished to whom we are indebted for some of our best theories upon the different branches of medicine.

particular to subjects human nature,

We may notice the absence of many upon the fields of man, among whom are Shamanhat and our Poet Chaucer whose Anatomical arrangement has rendered them justly celebrated.

There is no age in which we carry our inquiries that we do not see groups of extemporaneous rising like the sun in the oriental firmament but like him declined to set in the eve of the day and be forgotten.

It may be said of many of these they throw but little light upon the field of science whilst the labours of those of more modern times shine with redoubled splendor through the surrounding mist.

The article I have chosen for consideration is Opium the which ranks among the most medicine of the present day and one which every Practitioner should have a thorough knowledge of. Opium is at present more frequently prescribed than perhaps any other article in the Materia Medica there being scarcely a complaint, in the catalogue of human ailments in the treatment, of which it is not occasionally demanded, for the relief of suffering which it not relieves, Opium would render the remainder of life one continued scene of torture.

Opium is obtained from the exsudes of the Papaver Somniferum or white poppy the specimate & Pharmacopoial name of the plant, which produces it.

The use of this medicine though not unknown to Hippocrates can be clearly traced to Dioscorides and its importance has ever since been gradually increased by succeeding Physicians of

different nations. Its extensive practical utility, however has not been long well understood and in this country it may be dated from the time of Sydenham.

Opium is the chief narcotic now employed. It acts directly upon the nervous power diminishing the sensibility irritability and mobility of the system and according to Rullier in a certain manner suspending the motion of the nervous fluid to and from the brain and thereby inducing sleep one of its principal effects.

The botanical history of Papaver somniferum or white poppy and the various means of procuring Opium from it are described in so many different works that it is by no means necessary to repeat them the one most generally employed is by scarifying the half grown capsules in the evening and allowing the juice to exude during the night, which is scraped off in the morning and allowed spontaneously

to evaporate it is then formed into cakes further dried and wrapped in leaves in this state it reaches our market

Commercial History Our markets are chiefly supplied with that which is imported from the Asiatic dominions of Turkey of which Smyrna Opium is by far the most abundant, it is brought to the United States either directly from the Levant or indirectly through the Mediteranean ports of France and it is from this variety that the ordinary description of is drawn up. Opium when of good quality should have a peculiar strong narcotic odour and a bitter acrid taste if long chewed it excites irritation which sometimes amounts to blisters it should also leave a line if traced over white paper its colour brown or deep fawn its texture compact generally soft and tenaceous in the interior unless old then it is hard and brittle and it is in this state only that it can be reduced into powder

Chemical analysis has revealed some fifteen or sixteen different constituents of which Morphia is by far the most important. Narcotina Codia are rarely if ever prescribed at present. Opium when of good quality should yield from ten to twelve per cent of Morphia which is precipitated from the Alcoholic solution by Aq. Ammonia and afterwards united with acids to form compounds the Sulphate Acetate and Muriate are the three most generally prescribed

Opium is a powerful stimulant narcotic its primary action is always and in the highest degree to excite and stimulate the system thereby increasing the force fulness and frequency of the pulse increases the temperature of the skin accompanied by a peculiar pricking sensation invigorating the muscular system quickens the senses raises the spirits and has a wonderful effect on the intellectual faculties

It sometimes amounts to intoxication and delirium. The duration of the stimulant effect varies from half an hour to [illegible] according to the dose employed. Opium is seldom taken for its exhilarating effect, and it is for this that opium eaters and laudanum drinkers resort to. If a person has become habituated to its use unless he is under the immediate influence of this potent narcotic evinces all the symptoms of physical and intellectual imbecility, he is timid low-spirited and pale he experiences a tormenting anxiety of feeling, is totally disinclined as well as unfit for mental and bodily exertion. he is peevish and feels pain in different parts of the body, his extremities are cold indigestion torments him, he cannot sleep and feels a tremor throughout all his body. When the system is entirely free from its influence of the accustomed stimulant torments of the most distressing kind are experienced -

The stimulating effects of Opium are regulated, I believe, proportionately by its quantity, in opposition to the dose employed. It appears to me that the stimulant and sedative powers of Opium operate at one and the same time, and in no instance more remarkably than in that of Opium producing powerfully sudorific. The increased action of the heart however excited has a tendency to produce sweating at the same time it is somewhat difficult to produce sweating by the power of medicine purely stimulant and at all times Opium has been found to be the most effectual of all sudorifics. Some writers ascribe the sweating entirely to its stimulant power but it is highly probable that the sedative power concurring at the same time by relaxing the extreme vessels renders the sweating a more certain effect and more considerable in its degree, analogous to this are the night sweats in Phthisis depending upon an —

[illegible] and [illegible] of the [illegible] [illegible]
concerning [illegible]

Opium when taken in large doses the primary action is shorter the soporific and anodyne effects are more intense and the succeeding symptoms of debility more alarming.

In doses sufficient to destroy life the stimulant effect is scarcely perceptible but almost immediately reduces the frequency though not force of the pulse great prostration of the general system which soon ends in a deep apoplectic sleep if not relieved

If a patient be seen some hours after taking a fatal dose of Opium he will be found greatly prostrated a cool clammy skin cold extremities and a scarcely perceptible pulse

If seen in this state the practitioner should not despair but immediately use the stomach pump which should be introduced into the stomach through the nostrils, providing the poison has been taken in a liquid form as —

Laudanum or the other preparations of Opium
when it has been taken in substance Emetics
are preferable the capacity of the tube being to
small to admit of it in substance where
Emetics are slight give sulph zinc tart. antimony
mustard and warm water which is always at
hand should be freely used accompanied with
warm drinks to wash out the stomach. Cold
water should be dashed on the head and the
patient kept in motion If the stomach has
lost its sensibility and Emesis cannot be pro
duced the remedy should be used as practised
at the Almshouse with success that is by ad
ministering an acid and an Alkali a plaster of
tobacco to the stomach has been used to produce
Emesis If respiration has ceased it should be
performed artificially Galvanism and Elec
tricity should be tried if at hand.
Some of the old writers recommend bleeding be
fore the poison has been removed from the
stomach by Emetics or the other means

and however in my opinion would be bad practice. the [illegible] would be left in a thirsty condition and absorbtion would go on [illegible]

Opium is some [illegible] from [illegible] may produce very peculiar effects totally differing from the ordinary results of its operation in very small doses it occasions nausea and vomiting even spasms of the stomach have occured sometimes it occasions violent pains therefore the practitioner should be cautious to inquire into the patients previous health and habits, and in treating chronic diseases of [illegible] and Hypochondriacal cases great caution should be taken not to persist too long in its use as the consequences resulting from its long continued application are not unfrequently serious and in my opinion would be far worse than the disease itself. a simple disease exchanged for one which is more degrading and [illegible] that of [illegible]

Having now considered the physiological action of Opium I proceed next to consider its application in the treatment of disease. Opium is contraindicated in all inflamatory states of the system, and as a general rule in typhus. In all those cases in which blood letting is necessary, there may be exceptions in circumstances in certain inflamatory diseases that may admit or require the use of Opium, such are those cases in which the inflamatory state arises from irritation in a particular part producing spasm and supervening inflamation for example the passage of a calculi through the biliary duct and ureters where Opium has been found very beneficial in relaxing the spasms. In the inflamatory pneumonia typhus inflamation is not in first bleeding the patient freely then giving a full dose of Opium this has been found to have the happiest effect relieving the patient and preventing reaction

Opium is very useful in the latter stage of Continued fever which generally arise from contagion & from certain conditions of human effluvia proving such. thereby poisoning the blood and acting as sedatives which require the employment of stimulants. The cause of fever gives an irritation to the brain which is not of the inflammatory kind but produces convulsive motions of the limbs to a considerable degree, and to this irritation depends the delirium tremens so much taken notice of as occurring in the advanced stage of Continued fevers, for which Opium is one of the best remedies that can be employed to quiet nervous action promoting sleep checking diarrhoea and inducing perspiration.

It may be given whenever the pulse is not to full and strong and the brain not diseased. Should the pulse under its use become less frequent and increase in fullness relax the skin and promote refreshing sleep its action is favourably

In the treatment of Intermittent Fever Opium was much employed by the ancients, but since the introduction of Peruvian Bark and its preparations it has been disused and only by persons that were prejudiced against the bark.

It has been used in various stages the best time to give it is an hour before the expected paroxysm in a full dose say half or sixty drops of Laudanum this has been found to lessen the paroxysm and at once put an end to the disease.

If a patient be seen immediately before the expected paroxysm and too late for the full action of Quinine fearing that the next attacked will prove fatal. the two should be combined giving a full dose of Opium with from fifteen to twenty grains of Quinine this has been found to prevent the paroxysm and if not it will have no tendency whatever to augment the hot stage, Watson recommends it during the paroxysm if there is much pain, nervous disorder, should the stomach be irritable give it per Rectum

I must not omit to say something as regards the beneficial effects of Opium in the treatment of that frequent though intolerable and common disease, known under the name of Mania a Potu or the Drunkards Mania

This is known as a nervous affection, a disordered state of the nerves of sense, owing to the arrest of the ordinary stimulous to the brain the effect disarrangement, therefore being in this organ, the functions of the brain being impaired its influence sent forth to these different destinations is consequently wrong but feeble. The morbid tissue, produced in all parts of the system gives rise to disturbance of the general economy. But before I go on to the application of Opium in this disease allow me to state that it should not be mistaken for another disease of the brain as Phrenitis or Acute inflammation of the brain. A mistake which not unfrequently has happened and generally attended with disasterous consequences

to Opium in this disease the free use of which is contraindicated. But when we find all the characteristic symptoms of delirium tremens the cause which we can generally trace to restlessness and delirium the first thing aimed at is sleep, and how this can be produced say Watson in nine cases out of ten the only thing you will find succeeded is Opium

Sleep however should not be the main object although one unless think the patient must either sleep or die. A full dose of Opium in this disease will not at all times produce sleep and if repeated until this is accomplished the patient will certainly be Narcotised, and die from the effects of treatment rather than the disease itself

In such cases the Practitioner would undoubtedly deserve more credit by trusting the disease entirely to nature than by narcotising the patient by Opium. In a great many cases are said to have gotten well without any —

treatment whatever. Although Opium in this disease if properly used is very beneficial and in all cases I have seen treated with success unless complicated with other disease. It is recommended by some to stimulate the brain to general action with the regular stimulants as Brandy &c but I think if we can in some medicine as a substitute and at the same time to produce sleep we have accomplished something of vast importance this Opium will do. It is best to give ten drops of Laudanum in half an ounce of Brandy every two hours during the day and a full dose at night, keeping the patient bowels open. In the treatment of Asthma Opiates are very useful in protracted cases in which there is but little inflamation or a tendency to cerebral disease and even the spasmodic condition predominates. Opium affords the most speedy relief of the patients suffering and when employed during the interval

they often contribute to prevent a paroxysm or even to effect a cure.

Some writers contend that Opium when given given alone does not have the same good effect as when it is combined with an antispasmodic thus we one of the best preparation that can be employed in this disease is Sulphate of Quinine combined with camphor.

In the treatment of Epilepsy Opium is no doubt very useful, in cases where the disease is independent of any organic cause, and connected with great irritability of the system. Having had an opportunity myself to use a preparation of Opium in this disease with very good effect. The patient was a young lady, who had been treated by an old practitioner of this City for Hysteria as he supposed it was giving her antispasmodics as Assafoetida Valerian and others at the same time confining her to a low diet. After taking his medicine for some time and giving the paroxysms to

occur at shorter intervals and all the other symptoms augmented which were those of extreme Anemia. almost equal to the German woman treated successfully by Prof. Power during the winter together with the offensive character of the medicine which she then refused to take. became low spirited and giving up all hopes of ever getting well.

Being a fine looking young lady when well between sixteen and seventeen and somewhat interested in her welfare I undertook the case. Found her very weak although able to move about great nutibility of stomach especially after eating which was very little and invariably rejected Pulse appeared to be full and tolerably frequent but soft and easily compressible showing a want of energy in the heart's action. Countenance exceedingly pale lips and Conjunctiva nearly the colour of her face. hands cold appeared to be bloodless not vein could be traced on them.

I learned from her mother that her menses were regular but somewhat diminished in quantity and less coloured. Complained almost constantly of headache which was always more severe after a paroxysm of Epilepsy. This was always very marked and easily to recognize differing vastly from Hysteria — The day I commenced treatment she had two attacks one in the morning the other at the dinner table which was succeeded by a violent headache. I seen her in the evening and found that her mother had given her a small dose of Laudanum which had the effect of relieving her headache. At night I gave her a powder composed of Hydr. Bismuth gr x Sulph. Morph. gr ½ which was repeated in the morning and continued for a week three times a day. Owing to the great irritability of stomach I allowed her nothing but bread & milk which appeared to agree very well. At the end of a week finding that no Epileptic attack had returned and her stomach in a better —

condition I commenced giving Liq Ferri Iodid
gtt x three times a day gradually increased to gtt xx
continued the same powders only twice a day
giving her at the same time a more nutri
cious diet with the free use of Porter. After
taking an ounce and a half of Liq Ferri Iodid
and not changing the table much, I substitu
ted for it Per Hydrogen of Iron gr v with Pyro
Bismuth gr x three times a day with very good
effect and without giving rise to the disagree-
able eructations heretofore ascribed to it by
some writers. In less than a month she looked
like a different person was cheerful had a good
appetite and rosy cheeks. I commenced treat-
ing her about the middle of December since
then she has had no return of Epilepsy. It no
doubt depended upon irritation of her stom-
ach thence transmitted to the brain. The
morphia acting as a narcotic rendering the
brain less sensible to irritant impressions.)

And now Gentlemen before I close this I may allow me to say that I think it would be quite unthoughtful, and no lip compliment upon my part to do so, without offering that respect to you all which I feel convinced is my duty and moreover which is due to you, I therefore as I am with a sense of the deepest gratitude to you for your very kind and continued endeavours to instruct me in the path of medical science. And now as the sequel I only add that I fall short of words wherein to express my most heartfelt thanks to you all, accompanied with my most ardent wish for your future success and welfare, and may the University of Maryland be remembered and looked to from every quarters of the earth. And its reputation and the names of those who now occupy the respective chairs live and shine like the sun rising in the mental firmamant displaying light to all the with. Whilst I ever remain your sincere friend and Pupil

Balt. Feb. 13th 1851 Cornelius W. Forney

An
Inaugural Dissertation

On Erysipelas

Submitted to the Examination
of the

Provost, Regents & Faculty of Physic,
of the
University of Maryland:
for the
Degree of Doctor of Medicine.

By John E. Strain,
of
York County,

Pennsylvania.

There is no study more instructive, or more highly interesting, than that of the cause and cure of disease.

The original constitution of the human frame being pure and uncontaminated, its first impulse towards the development of disease was given, when hardy nature first assumed the effeminate garb of civilization; from which eventful period, man has been necessitated either to endure a lifetime of distress, or suddenly to be cut down, and wither as a flower, in the prime and vigor of his existence.

Erysipelas.

The subject selected for the present dissertation is that disease, under the order Phlegmasiæ of the class Exanthemata, is known to the medical world by the name Erysipelas.

This disease is an inflamatory affection of the skin, and also of the cellular and muscular tissues beneath. It is characterized by an exanthematous eruption, resulting frequently in desquamation; yet sometimes going on to suppuration in those of debilitated broken constitutions. Haveing no peculiar set of phenomena, it appears under every shade of severity as, from that of the slightest erythematic blush confined to one spot, to that of deep intense inflamation, affecting not only the skin, but involveing the cellular and muscular tissues, resulting in suppuration

ulceration and at times mortification as local symptoms, we have intense heat, elevation of the cuticle, distressing pain and redness, which disappears under pressure, quickly resuming, its glow upon its removal. The constitutional or general symptoms usually precede the local, manifesting themselves by chill & fever, loss of appetite, general lassitude, distress of all the functions, and at times functional disturbance varying according to the circumstances which precede the attack. As the disease appearing in a previously debilitated constitution, the symptoms will differ materially from those which present themselves in a person previously enjoying robust good health. The disease is also modified by locality; affecting the head and face it gives rise naturally to much apprehension from its close proximity to the brain, where it is

characterized by alternate rigor and flushes of heat, appearing at the precordia, with pain in the head, back and loins, delirium, and coma, with high or low toned febrile movement. Suppuration often follows, discovered by fluctuation, and death closes the scene.

Again, the inflammation attacking the extremities, remote from the important organs of the thorax and abdomen, although, attended with considerable constitutional disturbance, is not to be dreaded so much, being more tractable, and better influenced by remedial means. Here having no cephalic thoracic or abdominal complications to avoid, the practitioner acts with more energy and safety, both, to himself and his patient, in administering his remedies, to soothe and counteract the disease.

When this inflammation is confined to the skin alone unaccompanied by any general constitutional symptoms, it is termed Erythema; and is characterized by, a slight uneasyness in the part affected, some little elevation of the cuticle, with a moderate degree of heat and redness; and the system generally is not much disturbed. These symptoms continuing, for a few days desquamation of the cuticle often takes place, after which no further difficulty is to be apprehended.

But

if the attack be more severe and the inflamatory symptoms run high, with an apparent disposition on the part of the local inflamation to involve the sub-cellular tissue, the disease then assumes a more formidable and threatning character,

attended with pain along the tract of the spine, also in the head, distressing thirst and heat of skin, with excessive irritability of the nervous system, giving rise to extreme restlessness and laborious respiration. The parts affected become swollen, red, and tumid; the pulse assumes a hard frequent third, characteristic in a measure of this violent form of disease, which symptoms continuing for some indefinite period, vesicles appear upon the affected surface, gradually filling with a yellow lymphed and sometimes viscid fluid, which instead of discharging freely, often adheres and exsiccates upon the surface. These vesicles after a violent and protracted attack sometimes degenerate into ulcers, and at times assume a dark livid hue, with a tendency frequently to gangrene,

The causes of this disease are various, and are generally divided into two classes, viz. Idiopathic and Traumatic.

It is termed Idiopathic when produced by the various causes known to excite inflamation, such as extremes of heat and cold, sudden suppression of perspiratory functions, while at times a peculiar state of the atmosphere developes the disease spontaneously, without displaying any particular phenomena by which its source might be satisfactorily determined. It is called Traumatic, when some external definite cause operates directly upon the external surface of the body, giving rise to irritation, resulting in this peculiar form of exanthematous inflamation. Some of the principle of these causes are external wounds, surgical operations, and

the application of irritating and poisonous substances, while, the most frequent of these causes are burns and the accidental contact of boiling water, producing that variety of injuries termed scalds. The Prognosis in the milder forms of this disease is generally favorable, terminating frequently in resolution and desquamation of the cuticle. In the more severe forms, particularly if the face and head be the seat of the attack, it is more grave and unfavorable; and in the phlegmonous form, the prognosis is very infavorable if suppuration has occurred, from the danger of the patient sinking under the constitutional disturbance produced by pus burrowing beneath the cuticle, forming extensive sinuses which may be either circumscribed or diffused.

The correct plan of treatment to be adopted for the cure of this disease, is rather a difficult point to determine, consequent upon the great diversity of opinion which from time immemorial has existed in regard to the true pathological relations of this disease. To reconcile these jarring opinions, it is prudent perhaps to consider first, this affection as combined with phlegmonous inflamation, when it arises in a plethoric habit without any previous disease. In this case if the attack be sudden, accompanied by great heat and dryness of the surface, a full hard and frequent pulse, with evidence of cerebral disturbence, and manifest tendency exhibited by the local disease to spread over a large surface, or extend beneath the skin and involve the sub-cellular tissue threatning suppuration, here our first indication certainly

is blood letting, so, as to produce a decided impression upon arterial system, which often of itself completely checks the onward progress of the disease, and exerts a favorable influence upon its subsequent progress. Cooling saline purgatives are also of the utmost importance in removing all sources of irritation from the alimentary canal, and also acting as revulsives in the facial variety of the disease. Opiates are here also of the greatest benefit in allaying the morbid excitement of the nervous system, and quieting the distressing irritability consequent upon it. Antimonials are also indispensable in the treatment by their powerful influence in diminishing the irritated excitement of the heart and arteries; and also by their peculiar nauseating effects, determining to the surface, act beneficially by relieving the internal organs through the respiratory functions

Emetics although sometimes employed, are only beneficial when administered in the early stage of the disease, before the manifestation of any central symptoms, and are supposed to moderate the violence of its subsequent progress, by the powerful revulsive shock they produce upon the whole system. Cooling Saline Febrifuge mixtures, with the addition of gentle diuretics, exert the happiest effect in moderating and subduing arterial excitement.

The grand object of our local treatment here, is, to relieve the intense heat and painful sensibility of the inflamed part, and as far as practicable to endeavour to arrest the further spread of the inflamation, for which purpose our most potent remedies are cold evaporating astringent lotions, with Iodine, Nitrate of Silver, and of late Collodium

has become highly recommended as an early application for this disease. A solution of the acetate of lead and laudanum, appears to relieve the morbid sensibility of the part, and, ease pro tempore at least, the distress of the patient. These general and local means, aided by good hygiene and judicious management, will often effectually check and prove sufficient in the hands of a careful practitioner to overcome this formidable and disturbing affection. We have been endeavouring from our own slight experience and to the best of our humble ability, in the two preceeding pages to delineate a case of inflamatory Erysipelas, with its proper treatment; when it attacks a strut plethoric habit. We shall have two other varieties of this inflamation to notice before finishing. which are Facial, and Phlegmonus. Facial, when the face and head are the seat of the disease, and the Phlegmonus form

having no particular seat; but tending to burrow beneath the cuticle, and involve the cellular and muscular structures in its ulcerative process; frequently forming abscesses and sinuses, beneath the skin, with tendency at times to gangrene and death.

In the Facial variety we have the symptoms coming on with the usual pyrexia, often loss of appetite, head-ache, pain in the limbs, and general lassitude of the whole system; which continuing for an indefinite period is succeeded by redness and elevation of the cuticle upon the forehead generally first, which not unfrequently extends on the scalp and face of the patient, the treatment here is slightly antiphlogistic, and revulsive with the application of evaporating anodyne lotions, carefully watching

the occurrence of the slightest cerebral disturbance, or any manifestation on the part of the local mischief to involve the tissues beneath the skin, when these symptoms do occur which we know by the stupid comatose appearance of the patient, the prostration and glassy state of the eyes, the slow respiration and indifference to surrounding objects It is under this state of things that our remedies are of the greatest possible importance. Blisters to the back of the neck and extremities free cooling saline purgatives, the application of leeches to the temples, and if there is evidence of suppuration, from fluctuation, free incision into the parts with stimulating fomentations alternated with poultices, dry and bleeding cups to the neck and chest; and every means should be resorted to, to check the suppurating process.

In our remarks upon the facial variety of the disease we have anticipated somewhat our intended description of the Phlegmonous form, which is the most violent in all its symptoms. Originated by any one of the various causes mentioned as giving rise to the disease it displays the same array of symptoms which characterize the inflamitory and facial forms; with the exception that it is disposed quickly to involve the cellular and muscular tissues rapidly breaking down by its suppurative process, their structure, and often forming sinuses which destroy the patient by the great constitutional disturbance they create. The occurrence of suppuration is always attended by rapid prostration, low muttering delirium, fever of a low typhoid type often subsultus, hippocratic expression of the face, and a proportionate exaggeration of all the symptoms until death closes the scene:

our treatment here, is, to prevent or arrest the suppurative process, for the accomplishment of which our principle reliance is upon the judicious employment both locally and generally, of stimulants and tonics. The strength of the patient is to be well supported by the liberal employment internally of Wine, Ammonia, Quinine, Camphor, the mineral acids, & Serpentaria. The local application of stimulating fomentations and poultices, to arouse the tissues to more healthy action, also to meet, by close observation, any complications, and check their development, with proper attention to rest, temperature, &c, we have in these our principle and most powerful agents the means of speedily bringing this grave and distressing affection to a happy termination in health.

the post mortem appearances or lesions in this disease develope nothing in regard to its true pathology. The part which had been the seat of the inflammation will be found to have lost its contents, but not its swelling. Upon making an incision into the part a bloody serum is found infiltrating the cellular tissues, and when suppuration has occured, pus will be found instead of serum either diffused through the tissues or, in small circumscribed abscesses. In the violent forms of Phlegmonous Erysipelas, more extensive distinctions will be discovered. Pus, and dark colored ichor is deeply diffused through the tissues and blood vessels, with partial mortification, and even putrefaction. With these local phenomena, we often have traces of extensive desease in the membranes of the brain, pleura, pericardium, and peritoneum.

Could if not the tissues in the fatal
successive membranes are most frequently
found in a state of inflammation, and
in many instances the fatal termination
has been distinctly traced to sanguine
inflammation.

Having now endeavoured,
in the preceding remarks to express in
a correct manner and humble views in
regard to the subject, upon which I have
written, and being fully conscious that I
have but indifferently confined and treated
it, yet it is for me a great consolation
and since confidence, that the superior intellect
of the faculty will perceive a lenient
criticism upon this inferior and humble
dissertation.

Inaugural Dissertation

On

Phlebitis

Submitted to the Examination

of the

Board of Regents & Faculty of Physic

of the

University of England

for the

Degree of Doctor

By

William White

of

Somerset County

State of Maryland.

March 1st

Anno Domini 51.

[illegible] of my theses I shall endeavour to describe it as briefly as I can.

When we consider its wide intimate relation with pathology, [illegible] diseases to which it is connected, it is this disease which gives to many [illegible] operations of surgery their peculiar character.

This disease has [illegible] the septic character which is represented in puerperal fever, it is therefore of the deepest interest to the accoucher.

Does he fear such a disease? The answer must be he does; for it marks him also in very many cases. He too, is brought to examine his art and wield his sword [illegible] are made for his use, in this art and science. When ever drugs with mineral give way, there the scalpel must superceds.

But in [illegible]

[illegible] hath plainly declared, that it is [illegible] judged."

[illegible]

[illegible] cies, in such cases. Them will I sight death to the very door. Therefore the Accoucher is called by the loudest cry that can be heard from Heaven to earth, to lay up a stone [illegible] female, in the severest of all diseases. So in many cases the knowledge of the attendant ma[illegible] and save the mother from suffering even unto death.

[illegible] of Physic, calling fourth the Physicians astonishment by its incidious, its rapid, [illegible] resistless course. The very first effect of inflammation of a vein is, to impede the circulation of blood, and therefore it coagulates and cleaves to the inner [illegible]

[illegible] a time it is entirely closed. The occlusion of a small vein would not be of [illegible] but one of the largest ones would be of the most [illegible] as well as of the most fatal consequences.

This adhesive form of Phlebitis is certainly a local disease, and what injury it does must be mechanical.

First, by coagulation and this coagulum acting as a foreign body, producing irritation and adhesive of the vessels, which is cutting off a supply of blood from [illegible] ones. If the circulation can be sustainded by collateral branches, all may end well.

If inflammation can be subsided there is a probability of the coagulation softening and [illegible] by [illegible] the blood [illegible] a hole through the substance of the coagulum [illegible] will be reestablished.

After it has passed from the inflammatory to the suppurative stage [illegible] may remain a local disease.

The adhesions may bound the suppuration on all sides, and this is an abscess.

But if the suppurative process be [illegible] in the mass of the blood it is, no longer a local disease, being mingled with blood, it is carried to all parts of the body, and lodged in different parts of the capillaries.

The whole system is then poisoned by the circulation of blood mingled with pus.

And life is thereby [illegible] dangerous. So severe that if blood is contaminated by the pus — abscesses are known to be formed in liver followed, from fracture of the cranium: — And death swiftly follows irritation and other mental injuries.

By degrees it seems that pus is deposited in the liver, lungs, serous cavities, muscular structure, brain and not unfrequently in or near the joints. All were connected with the introduction of this vitiated secretion, and this awful secretion, pus: in the current of blood, rendering all or nearly all, as much contaminated as possible for it to do. It is well known that pus is not

carried to the different parts and deposited but is originated by inflammation taking place there, suppuration following leucocytes [illegible] of blood. All these means appear to occupy their place in the formation of pus and depositing the same.

Pus deposited in any serous cavity is [illegible] by inflammation. For instance, if Zuckerwar be injected in the [illegible] it will be found deposited on and in the [illegible] after it excites inflammation or after the period of incubation there is found a small [illegible] [illegible] but [illegible] [illegible] place [illegible].

It is evident [illegible] by incubation, because it is [illegible] many places where [illegible] flow but, merely oozes through walls of the capillaries. [illegible] is thought that substance [illegible] [illegible] absorption.

[illegible] all pass through the pa[illegible]

And as pus through the capillaries, these are foreign bodies in the net work as well as pus - and have to pass; and if they [illegible] [illegible]

Some pass to the left side of the heart and there permitted to flow on and be diffused with the arterial blood and [illegible] [illegible]

If this can thus be traced by the introduction of mercury or other substances into the circulation, it must be equally admissible that other impurities can be introduced by what is called good living as well as [illegible] of foul air, of a miasmatic or other regions as well as many other ways, it may settle [illegible] in the [illegible]

They there produce if [illegible] tion and pus is secreted, there will some change take place with [illegible] testine of the part.

Cancers are thus [illegible] [illegible] I have no doubt [illegible] [illegible] as [illegible] [illegible]

[illegible]
live activities are unconnected with any known cause and originated by aspiration of cold air, with exposure in the same the same and moisture is evident fro. traces of pus in almost every part of the human body; as Mr Cole says a [illegible] pain and redness in the [illegible] arm following the course of the cutaneous [illegible] after this the veins were left like hard cords in the flesh; after that the other arm [illegible] [illegible]ous." And thus we see this [illegible] [illegible] has traveled such a course they experience a feeling of trembling as with a paroxism, sweating with diarrhea ensuing.

After this will flatulence appear and then comes on abcesses which relieves, and this is often the means by which many are saved; by puncturing and letting out the contents and then granulations comes on, for the process of cure.

Such a [illegible]

cause of the bone or exposure of one. Many of the deepest or decreased veins [illegible] be [illegible] coagulated blood [illegible] by inflammation of the veins. [illegible] was nothing experienced neither ill convenience thought of.

[illegible] is very important and also very dangerous [illegible] influence of the atmosphere, [illegible] redistribution of the [illegible] by the [illegible] [illegible] induced by the atmosphere [illegible] contaminated with malarious poison.

For I think after the atmospheric [illegible] is contaminated with [illegible] poison is [illegible] system [illegible] to come out by some process or other, If per[illegible] it will finally poison the whole body, and death ensues.

If pus is formed and abscesses result from the introduction and [illegible] of pus into the system, it looks as if it might be a mistery, that they [illegible] appear in the form [illegible]

great quantity of this poison is met with and discharged with the feces and urine. It is also taken up by the veins and discharged with the perspiration, and [illegible] it is collected in [illegible] veins then it is not discharged but is taken up and absorbed in different ways.

It is naturally to suppose the pus undergoes some changes or it would be a deadly poison to the system.

Here in an amputation, a question might arise. Does pus get in the veins leading from the stump or is it taken up of the interior of the veins perhaps it might justly be supposed that it is taken up from the interior of the veins, and then is taken up by the circulation with this mingles with the blood. In deed days Drs. Arnot, Scott, others scattered throughout must always abound in Phlebitis sometimes to a greater or less degree, sometimes it is awful to behold.

After a surgeon has made an amputation and Phlebitis occur he

[illegible] the [illegible] of the system of [illegible] is a matter beyond dispute that when circulation has been stopped by the congestion of blood that takes place in the swelling of the limb will appear it would therefore be of interest to observe with attention to the surgeon.

When the superficial veins of some magnitude are inflamed and painful, swelling in the course of the vein which is of the adhesive kind of the disease it is soon converted into a tangible hard cord [illegible]

In many ~~cases~~ the surface is mostly [illegible], there is more or less edema of the part.

Phlebitis of this kind have been [illegible] [illegible] with inflammation of the lymphatics; the latter are distinguished by the slenderness of the fibrous cord, and its position is little more superficial than that of the [illegible] veins; and the streaks or patches of bright inflammatory redness did appear

Explanations of the hypothesis to
[illegible] Pantomorphia that is manifested
at certain periods. I have called the
disease a formidable one for it is
almost always a fatal one yet it is not
invariably so. I have from the first
history of several distinguished Physicians
viz. Dr Grant and Cunningham and others that
they imputed the fore arm of a man
which was crushed by machinery, soon
after the fatal symptoms to be some vigor
ing susperted Phlebitis and accordingly
of the larger veins beneficially treated in
the arm became swollen, hard, and tender,
in short as always for it is both
and in the back from which some twenty
oz of pus was discharged.

Below [illegible] Dr. Dow [illegible] seven or
eight collections of matter presented their
selves in various places one beneath
the tongue. This shows that suppurative
Phlebitis, when it is discovered, though
out the body is not invariably fatal but the
fatal cases are among the most [illegible]
[illegible]. Phlebitis [illegible] of strange [illegible]

[illegible] by [illegible] or otherwise in part-
ness, in proportion to the magnitude
and also to the rapidity of which the
obliteration or occlusion has been perform-
ed. It is impossible in my mind that
the ordinary phenomena which results
from these grave derangements in the
ordinary machinery of the body will be
of a considerable impediment so long as
such a state of things continue to be so.

As the veins into which absorption
is carried on discharge their contents were then
obliterated it becomes interesting to examine
the state of the vessels and also the lymphatic
glands but the effusion around the tissue
renders it difficult to trace the [illegible]
[illegible] the glands sometime are remarkably
larger and of a purple color and are filled
with bloody serum. This may often be
observed in the swelling of the neck noti-
ced during ~~[illegible]~~ life occasionally by the
Glandulæ concatinatæ.

In situations of different
circumstances such glands could not
be discovered at all, in consequence of the

[illegible] pain in and about different places of the thorax at times in the loins and a pain in the joints and groins while at the same time the abdomen may be indurated and its surface filled in a measure with the serpentine or zigzag lines, [illegible] passing up to middle and meeting near the linea alba. We have seen these veins magnum in the breast or about the abdomen and throughout the mucous glands in [illegible] when in such cases it is thought the part to be in a state of [illegible] congestion sarcoma and rigidity, all of which is of the greatest detriment to human life and perfect health.

It brings on dysphoria and excites for those vessels which are not obliterated are compressed which makes all of the other phenomena true. I would pray to know after such a state of things have been going on and time after time in the thorax or abdomen and it is pressing against the healthy [illegible]

until it brings on edema and
[illegible] at the same time the sup-
erficial veins are engorged and perhaps
[illegible]
[illegible] by the congealed blood
and then acting as a foreign body, and
then the collateral circulation to relieve
the part; but in the name of pure can
the subject survive.

It is enough for any one to
conclude that such an one must die,
for he can not live. It is plain that the
current of blood along the vena cava
must suffer impediment, when the one
so converging its blood is lost by com-
pression or perhaps rendered totally obtu-
rated by the opposite tumor.

The blood from the lower extre-
ities passes mainly by the iliac-cecal and
subclavian veins to the heart.

If the closure of a great venous
trunk were gradually effected as the
corresponding tumor augmented and
at length an opportunity were offered
for the development of [illegible] and [illegible] the
circumstances of the case certainly would

not be so distressing. But then have a simultaneous relation and the existence of our lives hang as it were on a web. On such a case the veins are constricted and wanting in the return course of the blood would be retrograding.

The vessels would bend and twist as the course of the blood forced its way back against the opposing but effective barrier of the valve.

The larger dispersed veins do not magnify to any great extent but the circulation of small vessels are very much augmented and distended. Yet they are apparently provided with a great number of anastomoses, these are commonly observed observed under natural circumstances, the same as the veins ~~of the~~ ~~network~~ into which the mouth of the uterus discharge their contents.

It seems to look natural to me that if one or more of the large veins cavities were obliterated and nature failed to supply it that the system would feel its loss so much as if one of our members were

Wounded. It would be so difficult and
so unusual. I have almost come to the
conclusion that it certainly would, because,
when one of our members was wounded
it does not appear that the whole loco-
motion has ceased of course this fail into
by a hair or the other hand when one of
the larger venous trunks are occluded
or obliterated the whole body would fail to
lop and suffer [illegible], unless it was
restored.

This to me seems to be a natural
idea under such existing circumstances.

And if such a trunk never was
restored to the system either by collateral
or any other kind of branches: its loss would
always be one of the greatest misfortunes and
cause great inconvenience to the constitution.

If in one limb there is one of
the veinous trunks obliterated, for it has as
well be so to be occluded if it cannot
be restored, when such a vein is obliter-
ated in a limb is it normal to suppose
that such a limb would not be so well
adapted for agility and locomotion as

if it had its full supply of blood & the part. And again there would be the congestion of blood acting as a foreign body in the tissues and causing [illegible], and the [illegible].

There is an evil nearly as bad as the first if we are permitted to point conjecture: that would be if the tissues were to traverse the frontal veins or any other where they have not an equal chance to pass of [illegible] enlarge in size; what would doubtly the face and its equal pressure immediately destitute of superciliary; for we do not think they are as well capable of expansion there as in other parts.

If they were to inflame and congulation of blood were to take place in this portion of the body be deprived any longer and what would be the consequence It is my opinion that there would be a weakness and a shrinking of the blood and never would look full and strong as before. And if inflammation were to be [illegible] and congulation did not end in abscess or [illegible] I would think it

would end in gangrene or suppuration on the other hand such would be the determination of the obstruction of such a vessel.

And if the obstruction of one of the veins of the head or even within the cranium, this would be of considerable worse consequence.

In this case one of the most important organs in the body would be deprived of its natural nourishment, and one which could not be done without at all in this part of the human frame.

It is important that we live and impossible to live without the supply of blood to the brain; and congulation acting there as a foreign body would act mechanically as well as vitally and would be of the gratest danger.

In all and in every part of Creation there are deadly poisons and enemies to life; drains of every kind deadly diseases, fevers, dangerous great pains, poisoning serpents, predacious animals our own passions food, clothing, heat and cold

and even our own blood which was made exclusively for our lives for a short season, — and so soon it is turned to our destruction. In these moments of decay, every thing of a really natural is lost — and in a moment of time every thing that life and vigor is laid low, and the span of our lives is no more than a tale that's been told or a mighty dream.

After we have thus indicated our intention in such a manner we must now in liberamen in indicate a momentary treatment for the head of our subject. For rough [illegible] would our lives be if there were no tales in Gilead, if there was no [illegible] there.

Treatment would be leaches to the and general depletion, very often this is applied to the seat of the disease.

[illegible], lotions, fomentation and cold lotions externally applied; internally purgatives aperients with stimulants and tonics.

When we have to resort to mental

ical means bandages and foot on with bleeding, cupping, and scarifications and blistering, to which will next and greatest. Many after most of these medicines are tried with necessary, and perseverance and without very little avail. Then we must change and vary our medicines and means in such a way as to meet the demands of the case; whatever it may be. We are not confined to any particular drug or mineral, neither is our drugs confined to any particular operation or action upon the system, neither locally, or generally. The urgency of the case demands it. Our knowledge ought to be sufficient to trace and appreciend the various changes, so as to apply our remedies to them, let them be as they may;

In this way after giving our knowledge for a short time and frequency; we may to

accurately apply our remedies. That we may eliminate the disease at once. That is providing it is to be cured, all diseases are not [illegible] for reasons that I have set in on page 3rd [illegible] we know nothing of these diseases until we have tryed them, with our remedies. And when we do all that we can do, we then realize that as man shall ~~then~~ we go and so forth.

We are all only called upon to do what we can in any case what ever, we must do all we can and when we do this, no more is required. When we consider our and superceded by a higher Power we should determine when we are bid to do so.

We apply remedies to such as we are able to apply them, and assist in the [illegible] of those which we are allowed. I do not think upon an average that we are benefited to more than two thirds of the cases, and scarcely this for several reasons. As we set down

selves rather and say as their are many
paralysis and difficult cases, let us
give it a rest, and make no further effo
rts, for its cure therefore we are inexcusa
ble ohm!

For in almost all cases where
ever the disease is there closly connected
is a remedy for [illegible] for
its cure. Generally therefore we find
the plagues and the [illegible] of
each other. And all that is wanting is
a genius to find the [illegible] and pro
portions, with their properties and made
application of the same.

In supplementing Effloritis we
should attend to the discharges and their
application, and the system must the
be supported by tonics and nutritious
diet; in a word the general health must
be attended to and always found in
a proportionate appearance.

There is a proportion and we
ought to acquaint ourselves with these
seasons and opportunities. If pain gives
anodine with a poltice. ~~And when the~~

And when the vein appears so hopeless
we could we may apply stimulants to a
certain degree and friections to counteract the
pressure, all of these must be carried on,
for, the very often we do more harm
than good, and we had better leave the
patient to nature. Under the present
view of this we see the necessity of
being wise as serpents with
eyes when we are called to relief of
the sick and suffering. We know we are
not capable of distinguishing in many
in any case at all. For those often
that strike the heart go to the outside
vessels. For which of you by thought
can add one cubit to his stature.

Consider the lilies of the field,
how they grow, they toil not neither do
they spin; and yet I say unto you, that
Solomon in all his glory was not arrayed
like one of these."

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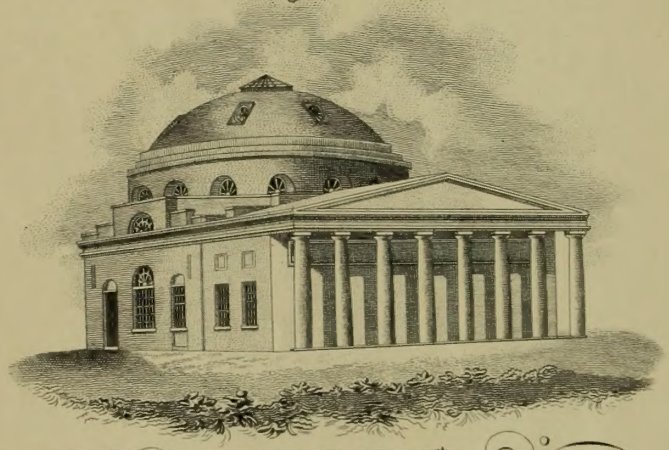

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